Subject Index 1990

Ab initio calculation
Conformation and ring inversion in γ-butyrolactone. Part 2.—*Ab initio* and flexible model computations, 459
Polarisability of the bromide anion in NaBr. Parameters for simulation of molten NaBr, 1019
Ab initio study of the structure and vibrational frequencies of the $^2B_2$ state of AlC_2H_4, 1399
Comparison of quantum scattering calculations for the $H + H_2$ reaction using the LSTH and DMBE potentials, 1701
Ab initio studies of acetylene tetramer and pentamer, 1931
Ab initio molecular orbital calculations of the infrared spectra of hydrogen-bonded complexes of water, ammonia and hydroxylamine. Part 5.—Effects of convergence criterion and electron correlation on geometry, wavenumber and intensity: the *trans*-hydroxylamine monomer revisited, 3067
Theoretical study of the hex-3-ene radical cation, 3287
Structures, energies and harmonic vibrational frequencies for the reactions of NH with NO and NO_2, 3519
Calculated energetics of torsional motion in six diphenyl molecules: benzophenone, diphenyl ether, diphenyl sulphide, diphenyl sulphone, diphenylmethane and diphenyl, 3995

Absorption
Anomaly in the rate of oxygen absorption by zirconium due to the formation of oxide at the surface: autocatalytic reaction model of oxide nucleation, 3797

Absorption spectroscopy
Temperature dependence of the equilibrium constant for iodine hydrolysis at temperatures between 25 and 120 °C, 1443

Acetaldehyde
Formation of CH_3CHO in the combination of CH_3 with CHO, 1763
Vacuum-ultraviolet absorption spectrum of acetaldehyde, CH_3CHO, and the related deuterides CH_3CDO and CD_3CDO, 3349

Acetamide
Dielectric properties of urea and acetamide in aqueous solution, 321

Acetonitrile
Solution thermodynamics of lanthanide(III) cations (La^{3+}, Pr^{3+} and Nd^{3+}) and cryptands in propylene carbonate and in acetonitrile, 89
Solvation of copper(I) perchlorate in mixed solvent systems containing acetonitrile. A ^{63}Cu, ^{65}Cu and ^{31}P nuclear magnetic resonance study, 2847
Ionic enthalpies of transfer in acetonitrile–water mixtures, 3391

***N*-Acetyl amino acid amide**
Enthalpies of interaction of some *N*-acetyl amino acid amides dissolved in *N*-methylformamide at 298.15 K, 3737

Acetylene
Ab initio studies of acetylene tetramer and pentamer, 1931

***N*-Acetyl-*N*-methyl amino acid amides**
Chiral interactions of some *N*-acetyl-*N'*-methyl amino acid amides dissolved in *N,N'*-dimethylformamide, 1461

Acid–base behaviour
Acid–base behaviour of 4-nitrophenol and 4-nitrophenyl-2-sulphonate in water-in-oil microemulsions stabilized by aerosol-OT, 833

Acid-catalysed reduction
Primary kinetic isotope effects on acid-catalysed reduction of *p*-benzoquinone derivatives by an acid-stable NADH analogue, 3531

Acidic solution
Reaction characteristics of dental and synthetic apatites with Al^{3+} and La^{3+} ions in acidic solutions, 4025

Acidity function
Titration of H_2SO_4/SiO_2-mounted catalysts in cyclohexane with pyridine based on a new acidity function considering the effect of physisorption sites, 3447

Acid water
Dissolution kinetics of Carrera marble, Portland stone and several limestones in acid waters, 849

Acrylonitrile
Theoretical study of the dependence of the valence electronic levels on the tacticity and conformation of acrylonitrile model oligomers, 1025

Activated carbon
In situ infrared study of the surface oxidation of activated carbon dispersed in potassium bromide, 2997

Activated ruthenium electrode
Rotating ring–disc electrode study of the enhanced oxygen evolution on an activated ruthenium electrode, 3743

Activation volume
Atomic transport of trivalent impurities in silicon: diffusion, isotope effects, activation volumes, 1293

***N*-Acylglycine**
Vibrational spectra of *N*-acylglycine oligomers and the long *N*-acyl chain effect, 1561

Adsorption
A mean field analysis of an ion–dipole mixture against a charged hard wall with specific adsorption. Part 2.—Non-linear results, 35
Adsorption of xenon on silica gel. Part 1.—Thermophysical properties of the adsorbate, 171
Adsorption of xenon on silica gel. Part 2.—Hysteresis and capillary phase transitions, 175
Infrared study of the adsorption of water and ammonia on calcium carbonate, 181
The adsorption of ethanal by some type A zeolites. A Fourier-transform infrared study, 205
Multi-stage micropore filling mechanism of nitrogen on microporous and micrographitic carbons, 371
Infrared study of hydrogen adsorbed on ZrO_2, 397
^1H nuclear magnetic resonance studies of complexes formed by adsorption of ammonia on nickel-Y type zeolite, 413
Adsorption of benzene and ethylbenzene on the acidic and basic sites of beta-zeolite, 431
Adsorption of isobutene on partially hydrophobized Aerosil, 539
The role of sodium ions as adsorption sites in silicalite-1, 561
Infrared study of the adsorption of NO, NO_2 and CO on Rh/Al_2O_3 catalysts, 571
Infrared study of nitric oxide adsorption on a chromia/$AlPO_4$ ethene polymerisation catalyst, 577
Revisiting MgO–CO surface chemistry: an IR investigation, 703
Simulation of adsorption of deformable particles modelled as cyclic lattice chains. A simple statistical model of protein adsorption, 805
Comparison of nuclear magnetic resonance tracer exchange and molecular uptake of benzene on pentasils, 881
Surface electrochemistry of the anodic Cl_2 evolution reaction at Pt. Influence of co-deposition of surface oxide species on adsorption of the $Cl^{\cdot}$ intermediate, 923
Fourier-transform infrared study of the surface properties of cobalt oxides, 989
Interaction of methyl-, ethyl- and n-propyl-amines with metal films of iron, nickel, palladium and aluminium, 995
Adsorption of ammonia and methylamines on alumina and copper/alumina studied by dynamic Fourier-transform infrared experiments, 1131
Volume-fraction profiles of adsorbed polymers, 1323
Statistical thermodynamics of block copolymer adsorption. Part 2.—Effect of chain composition on the adsorbed amount and layer thickness, 1333
A study of block copolymer adsorption kinetics *via* internal reflection interferometry, 1341
Adsorption of polystyrene and poly(methyl methacrylate) onto a silica surface studied by the infrared technique. Comparison with theory, 1383
A Fourier-transform spectral-ratioed reinvestigation of the infrared spectra from H_2 and D_2 absorbed on ZnO at room temperature and at 160 °C, 1615
Adsorption of carbon dioxide on polycrystalline copper, 1889
Coadsorption and interaction of nitric oxide and carbon monoxide on Rh supported on highly dealuminated Y zeolite. Formation of mixed Rh carbonyl–nitrosyls on the surface, 2329
Structure and behaviour of $Ru_3(CO)_{12}$ supported on inorganic oxide surfaces, studied by EXAFS, infrared spectroscopy and temperature-programmed decomposition, 2645
Molecular-beam studies of methanol partial oxidation on Cu(110), 2693
Role of oxygen transients in the chemistry of dioxygen at atomically clean metal surfaces: the Zn(001)–dioxygen–ammonia system, 2701
Coadsorption of nitrogen with Cu, Ag and Au on W{100}: the role of metal adatoms in controlling surface reactivity, 2735
CO adsorbed on Cu(100): RAIRS at ultrahigh vacuum and higher pressures, 2743
Genesis of zinc–cobalt promoted hydrotreating catalysts: adsorption isotherms of Zn and/or Co on Al_2O_3, 2765
Infrared studies of ethene hydrogenation over ZrO_2. Part 1.—Ethene adsorption, 3021
Effects of temperature on the partitioning and adsorption of $C_{12}E_5$ in heptane–water mixtures, 3111
Hydrogen adsorption on silica-supported platinum studied by proton nuclear magnetic resonance spectroscopy, 3491
Infrared studies of ethene hydrogenation over ZrO_2. Part 2.—Ethane adsorption, 3665
Factors influencing efficiencies of TiO_2-sensitised photodegradation. Part 1.—Substituted benzoic acids: discrepancies with dark-adsorption parameters, 3935
Adsorption of benzene on a range of activated Y zeolites, 3961
Adsorption of acetamide at the mercury/aqueous solution interface, 4037
Adsorption of methane on magnesium oxide surfaces under ultraviolet irradiation, 4071
External surface adsorption of uranyl–hydroxo complexes on zeolite particles in relation to the double-layer potential, 4095

Aerosil
Adsorption of isobutene on partially hydrophobized Aerosil, 539

Aerosol-OT
Acid–base behaviour of 4-nitrophenol and 4-nitrophenyl-2-sulphonate in water-in-oil microemulsions stabilized by aerosol-OT, 833

Afterglow
Mechanism of CuCl and CuO chemiluminescence in microwave-induced plasma afterglows at 300 K, 603

Aggregation
Determination of an average rate constant for the rapid coagulation of polydisperse suspensions using photon correlation spectroscopy, 671
Kinetics of bridging flocculation. Role of relaxations in the polymer layer, 1355
Theoretical modelling of an infinitely dilute irreversibly aggregating suspension, 2961
Monitoring aggregation of dilute suspensions in the intermediate regime using photon correlation spectroscopy, 3763
Aggregation behaviour of an azo dye containing

a trifluoromethyl group on poly(vinylpyrrolidone), 4031
Air–water surface
Mixing of alkanes with surfactant monolayers at the air–water surface, 211
Alcohol–D_2O solution
Small-angle neutron scattering study of D_2O–alcohol solutions, 1503
Alkali-metal
Chemical effects in the X-ray emission (F K_α) and X-ray photoelectron spectra of alkali-metal and alkaline-earth-metal fluorides, 247
Electron paramagnetic resonance spectra of coinage metal atoms trapped in evaporated alkali-metal chloride matrices at low temperatures, 2169
Alkali-metal clusters as prototypes of metal clusters, 2525
Alkane
Mixing of alkanes with surfactant monolayers at the air–water surface, 211
Temperature dependence of reactions of the nitrate radical with alkanes, 2109
Hydrogenolysis of alkanes. Part 5.—Effect of metal dispersion in ruthenium/alumina catalysts on the hydrogenolysis of propane and of n-butane, 2297
Scattering studies of microemulsions in low-density alkanes, 2883
Alkanol
Hydrophobic interactions of alkanols. A calorimetric study in water at 298.15 K, 85
Conformational equilibria in n-alkanols. Infrared spectral deconvolution of the unsymmetric hydroxyl band profile, 1781
Alkene
Model calculations of chemical interactions. Part 2.—Intramolecular interactions and double-bond pyramidalization in polycyclic alkenes, 783
Infrared spectroscopic comparison of the chemisorbed species from ethane, propene, but-1-ene and *cis*- and *trans*-but-2-ene on Pt(111) and on a platinum/silica catalyst, 2757
Electron paramagnetic resonance study of the reaction of group 11 metal atoms with higher alkenes in a rotating cryostat, 3329
Alkylamine
Interaction of methyl-, ethyl- and n-propyl-amines with metal films of iron, nickel, palladium and aluminium, 995
Alkyl ether
Analysis of isotope effects by perturbation theory technique. $^{18}O/^{16}O$ isotope effects in alkyl ethers, 1411
Analysis of isotope effects by the perturbation theory technique: $^{13}C/^{12}C$ isotope effects in alkyl ethers, 3871
Alkylperoxy radical
Flash photolysis study of the spectra and self-reactions of neopentylperoxy and t-butylperoxy radicals, 2927
Alkylphenoxypolyoxyethylene salt
Cation–surfactant interactions in aqueous alkylphenoxypolyoxyethylene salt solutions. A Raman spectroscopic study, 1109
***N*-Alkylpyridinium iodide**
Study of preferential solvation in mixed binary solvents by ultraviolet–visible spectroscopy, 1785
Alloy
Absorption of hydrogen by Pd–Nb(Ta) solid solution alloys, 377
Structure maps in alloy design, 1209
Radiation-induced segregation in metals, 1263
Tight-binding study of the adsorption of hydrogen on Pt, Au and Pt–Au (111) surfaces, 3793
Alternating current impedance
Alternating current impedance study of a polypyrrole-based anion-exchange polymer, 3631
Alumina
Kinetics of N_2O decomposition on Fe^{3+} supported on pure and Li-modified Al_2O_3, 185
Infrared study of the interaction of CO with alumina-supported rhodium, 389
Influence of hydrogen chloride addition on the catalytic isomerization activity of chlorinated alumina and chlorinated platinum–alumina solids. Superacid behaviour, 567
Poisoning effects of Li^+ and F^- ions in alumina for N_2O decomposition, 711
Adsorption of ammonia and methylamines on alumina and copper/alumina studied by dynamic Fourier-transform infrared experiments, 1131
Chemisorption of linear and cyclic polymethylsiloxanes on alumina studied by Fourier-transform infrared spectroscopy, 1377
Adsorptive interactions of glucose and carbon dioxide with basic sites over alumina, 1885
Hydrogenolysis of alkanes. Part 5.—Effect of metal dispersion in ruthenium/alumina catalysts on the hydrogenolysis of propane and of n-butane, 2297
Physicochemical properties of copper oxide loaded alumina in methane combustion, 3027
Aluminium
Reaction of ground-state aluminium ions with diethyl ether. Electron spin resonance evidence for insertion into the CH and CC bonds, 219
Changes in the structure of ZSM-5 zeolites during boron and aluminium substitution, 753
Ab initio study of the structure and vibrational frequencies of the $^3B_2$ state of AlC_2H_4, 1399
Electron paramagnetic resonance study of the reaction of ground-state aluminium atoms with a series of ethers in a rotating cryostat, 3321
AM1 program
Keto–enol tautomerism of dithiomalondialdehyde and dithioacetylacetone. A reinvestigation using version 2.1 of the AM1 method, 3713
Amino acid
Enthalpies of interaction of some *N*-acetyl amino acid amides in aqueous urea solutions at 298.15 K, 2943
Thermodynamic properties of peptide solutions. Part 6.—The amino acid side-chain contributions to the partial molar volumes and heat capacities of some tripeptides in aqueous solution, 3117
Permittivity at 70 GHz of water in aqueous solutions of some amino acids and related compounds, 3577
Aminotetrazine–argon
Aminotetrazine–argon, the world's smallest 'large gas-phase cluster', 2503
Ammonia
^1H nuclear magnetic resonance studies of complexes formed by adsorption of ammonia on nickel-Y type zeolite, 413
Adsorption of ammonia and methylamines on alumina and copper/alumina studied by dynamic Fourier-transform infrared experiments, 1131
Theoretical ^{14}N nuclear quadrupole coupling surface for ammonia, 1991
Photophysics of clusters. Intracluster reactions and dynamics of dissociation processes, 2417
Resonance-enhanced multiphoton ionisation of vibrational state selected NH_3 molecules: a reinvestigation, 2921
Infrared study of the reaction of carbon monoxide and ammonia over supported rhodium catalysts, 3809
Amorphous alumina
Effect of phosphate ions on the surface chemistry and microstructure of amorphous alumina, 3653
Amperometric sensor
Novel amperometric sensor for the detection of the anaesthetic gases isoflurane and nitrous oxide, 1077
Anaesthetic gas
Novel amperometric sensor for the detection of the anaesthetic gases isoflurane and nitrous oxide, 1077
Angular momentum
New theoretical methods for molecular collisions: the complex angular-momentum approach, 1627
Anharmonic coupling
Energy transfer in polyatomic molecules. Anharmonic couplings in H^+–CF_4 collisions, 1663
Eigenstate-resolved ν_1 spectrum of CF_3CCH: anharmonic couplings to the bath, 2071
Anion-exchange polymer
Alternating current impedance study of a polypyrrole-based anion-exchange polymer, 3631
Anisotropic interaction
Structural and topological consequences of anisotropic interactions in clusters, 3505
9,10-Anthraquinol radical
Electron paramagnetic resonance, ENDOR and TRIPLE resonance of some 9,10-anthraquinol radicals in solution. Part 4.—Anthraquinolsulphonates, 3257
Anthraquinone
Pulse radiolyses of anthraquinone and anthraquinone–triethylamine in acetonitrile and toluene at room temperature, 95
Electron paramagnetic resonance, ENDOR and TRIPLE resonance of some 9,10-anthraquinone radicals in solution. Part 3.—Hydroxyanthraquinones, 2569
Photodynamics of the S_1 state of some hydroxy- and amino-substituted naphthoquinones and anthraquinones, 3861
Antioxidant
Molecular mechanics study of hindered phenols used as antioxidants, 47
Apatite
Reaction characteristics of dental and synthetic apatites with Fe^{2+} and Fe^{3+} ions, 1071
Synthetic carbonate apatites as inorganic cation exchangers. Exchange characteristics for toxic ions, 2303
Aquation
Micellar effects upon the reactions of complex ions in solution. Part 4.—Kinetics of aquation and base hydrolysis of some *cis*-(chloro)(amine) bis(ethylenediamine)cobalt(III) complexes in the presence of neutral and anionic surfactants in an aqueous medium, 507
Aqueous solution
Temperature of maximum density behaviour of non-electrolytes in water, 911
Volumetric properties of aqueous solutions of alcohols and diols at 25°C, 3891
Argon
Ultraviolet photodissociation of Ar_2^+ and Ar_3^+, 2069
Infrared spectroscopy and dimer formation at the surface of medium-large argon clusters, 2361
Photoionization and excitation energies of an Al atom in Ar_N clusters, 2375
Aromatic hydrocarbon
Characterisation of solvent properties of aromatic hydrocarbon mixtures, 1449
Arrhenius parameter
Arrhenius parameters for the addition of HO_2 radicals to (*E*)-but-2-ene over the range 400–520 °C, 2115
Association
Canonical variational transition-state comparative study for $M^+(=Li^+, Na^+$ and $K^+) + H_2O \rightarrow [M \cdot (H_2O)]^+$ association reactions, 241
Chromatographic behaviour of reversibly associating macromolecules. Part 1.—Theoretical model, 1103
Association and surface properties of block-copoly(oxyethylene/oxypropylene/oxyethylene) L64, 1569
Association and semiempirical equations of state, 2823
Autocatalysis
Anomaly in the rate of oxygen absorption by zirconium due to the formation of oxide at the surface: autocatalytic reaction model of oxide nucleation, 3797
Azo dye
Aggregation behaviour of an azo dye containing a trifluoromethyl group on poly(vinylpyrrolidone), 4031
Azolidine
Electronic structure and quadrupole couplings of the heterocycles 2-imidazolidinone, 2-imidazolidinethione and 2-imidazolidineselenone by the MS-LDA method, 889
Basic dye
Formation of mixed dimers in solutions of basic dyes, 3551
Belousov–Zhabotinskii reaction
Detailed bifurcation structure and new

mixed-mode oscillations of the Belousov–Zhabotinskii reaction in a stirred flow reactor, 3695

Benzene
Adsorption of benzene and ethylbenzene on the acidic and basic sites of beta-zeolite, 431
Comparison of nuclear magnetic resonance tracer exchange and molecular uptake of benzene on pentasils, 881
Weak interaction in benzene clusters, 2511
Efficiency of triplet-photosensitised singlet oxygen generation in benzene, 2671
Adsorption of benzene on a range of activated Y zeolites, 3961

Benzenoid
Why can so few benzenoids be completely drawn with Clar's resonant sextets? An analysis using 'branching graphs' and a 'coiled hexagon code', 447
Calculating the characteristic polynomial, eigenvectors and number of spanning trees of a hexagonal system, 1033

Benzoic acid
Factors influencing efficiencies of TiO_2-sensitised photodegradation. Part 1.—Substituted benzoic acids: discrepancies with dark-adsorption parameters, 3935

Benzophenone
Flash-photolysis study of the 4-(methyl sulphonate)-benzophenone ketyl radical anion in alcohol–water mixtures, 619

Betaine
Computer simulation and solvatochromic studies of the solvation of a betaine in single and mixed solvent systems, 3725

Bichromophoric molecule
Dipole–dipole interactions between the terminal groups of 1,*n*-diarenecarboxy alkanes, $n = 1, 2, \ldots, 6$, 4011

Bifurcation structure
Detailed bifurcation structure and new mixed-mode oscillations of the Belousov–Zhabotinskii reaction in a stirred flow reactor, 3695

Bilayer
Photochemical electron transfer across surfactant bilayers mediated by 2,1,3-benzothiadiazole-4,7-dicarbonitrile, 2897

Bi–Mo catalyst
Kinetic features and lattice-oxygen participation in propene oxidation over Bi–Mo oxide and some Mo oxide catalysts, 4077

Binary electrolyte
Salt velocity correlation functions: a microscopic interpretation. Part 2.—Solution of two or more binary electrolytes with a common ion, 1057

Binary mixture
An inverse Kirkwood–Buff treatment of the thermodynamic properties of DMSO–water mixtures and cyanomethane–water binary liquid mixtures at 298.2 K, 277
Relationship between solvatochromic solvent polarity and various thermodynamic and kinetic data in mixed solvent systems, 287
Comments on the competitive preferential solvation theory, 307
Nuclear magnetic resonance relaxation studies of proton exchange in methanol–water mixtures, 481
Ultrasonic and dielectric behaviour of binary systems of methyl ethyl ketone with 1,2-dichloroethane, methylene chloride, trichloroethene, tetrachloroethene and cyclohexane, 645
Kinetics of the solvolysis of chloropenta-amminecobalt(III) ions in mixtures of water and glucose, 941
Thermodynamic studies on the structure of iso-dielectric binary mixtures of methanol with ethylene glycol, acetonitrile, nitrobenzene and nitromethane, 1477
Study of preferential solvation in mixed binary solvents by ultraviolet–visible spectroscopy, 1785
Excess molar Gibbs energies of mixing of water and 1,1,1,3,3,3-hexafluoropropan-2-ol mixtures at 298.15 K, 2209
Preferential solvation in mixed solvents. Part 5.—Binary mixtures of water and organic solvents, 2215
Influence of ionic association on the *B* coefficient of the Jones–Dole equation for KI and KCl in water–t-butyl alcohol mixtures at 26 °C, 2225
Dilute lamellar and L_3 phases in the binary water–$C_{12}E_5$ system, 2253
Dimerisation of dimethyl sulphoxide in dipolar aprotic solvents using *R,S,R,S*-1,4,8,11-tetramethyl-1,4,8,11-tetra-azacyclotetradecane nickel(II) as a probe, 2937
Ionic enthalpies of transfer in acetonitrile–water mixtures, 3391

Biphenyl ester
Molecular structure and smectic properties: the substituent effect on the smectic A phase in biphenyl ester systems, 3429

Bismuth molybdate
Cooperation between the α and γ phases of bismuth molybdate in the selective oxidation of propene, 3145

Block copolymer
Statistical thermodynamics of block copolymer adsorption. Part 2.—Effect of chain composition on the adsorbed amount and layer thickness, 1333

π-Bond
Model calculations of chemical interactions. Part 1.—Intramolecular interactions and rotational barriers, 777

Bonnet transformation
Bonnet transformation of infinite periodic minimal surfaces with hexagonal symmetry, 769

Boron
Changes in the structure of ZSM-5 zeolites during boron and aluminium substitution, 753

Boron carbide
Release of tritium from boron carbide, 651

Bridging flocculation
Kinetics of bridging flocculation. Role of relaxations in the polymer layer, 1355

Brillouin scattering
Brillouin-scattering and computer-simulation studies of fast-ion conductors: a review, 1183

Bronze
Nuclear magnetic resonance and differential thermal analysis studies of hydrogen molybdenum bronzes, H_xMoO_3, 1583

Brønsted acidity
Limitations of resolution in the ^1H magic-angle-spinning nuclear magnetic resonance spectroscopy of zeolites, 3957

Brownian motion
Influence of polydispersity on dynamic light scattering measurements in concentrated suspensions, 1149

Brush
Strong-stretching and Scheutjens–Fleer descriptions of grafted polymer brushes, 1349

Butene
Arrhenius parameters for the addition of HO_2 radicals to (*E*)-but-2-ene over the range 400–520 °C, 2115
Infrared laser-Raman and X-ray diffraction investigation of MoO_3/ZrO_2 and the oxidation of (*Z*)-but-2-ene, 2291

t-Butyl alcohol–water mixture
Dielectric, ultrasonic and carbon-13 nuclear magnetic resonance relaxation measurements of t-butyl alcohol–water mixtures, 1493

Butylammonium cation
Studies of the anisotropic self-diffusion and reorientation of butylammonium cations in the rotator phase of butylammonium chloride using ^1H magnetic resonance, electrical conductivity and thermal measurements, 3777

t-Butylperoxyl radicals
Kinetic electron paramagnetic resonance study of the reactions of t-butylperoxyl radicals in aqueous solution, 3247

γ-Butyrolactone
Conformation and ring inversion in γ-butyrolactone. Part 1.—Microwave spectrum, 453

Cadmium
The precipitation of cadmium sulphide in aqueous solutions, 973
Kinetics and mechanism of formation of quantum-sized cadmium sulphide particles in water–aerosol-OT–oil microemulsions, 3757

Caesium
Collisional excitation and fragmentation of alkali-metal halide cluster ions, 2533

Calcite
Kinetics of the Langmuirian adsorption of Cu^{II} ions at the calcite/water interface, 129
The effect of carboxylic acids on the dissolution of calcite in aqueous solution. Part 2.—*d,l* and *meso*-Tartaric Acids, 137
Inhibitor effects on calcite growth at low supersaturations, 965
Effect of carboxylic acids on the dissolution of calcite in aqueous solution. Part 3.—Polymaleic acid, 1517
Morphological influence of functionalized and non-functionalized α, ω-dicarboxylates on calcite crystallization, 1873

Calcium
Infrared study of the adsorption of water and ammonia on calcium carbonate, 181
Concentration effects on defect stability in calcium fluoride, 1193
Diffusion coefficients for the ternary system $Ca(OH)_2$–H_3PO_4–water, 3093

Calorimetry
Hydrophobic interactions of alkanols. A calorimetric study in water at 298.15 K, 85
Calorimetric and spectrophotometric studies of complexation of manganese(II), cobalt(II) and nickel(II) with bromide ions in *N,N*-dimethylformamide, 271
Formation of chloro complexes of manganese(II), cobalt(II), nickel(II) and zinc(II) in dimethyl sulphoxide, 2179
Calorimetric and spectroscopic studies of LiSCN solutions in aprotic solvents, 3103
Interactions between metal cations and the ionophore lasalocid. Part 8.—Enthalpies and entropies of formation of 1 : 1 and 2 : 1 complexes of lasalocid anion and salicylate with some divalent transition-metal cations in methanol, 3395
Hydrophobic interactions in the aqueous solutions of alkan-1,2-diols. Calorimetric and spectroscopic studies at 298.15 K, 3567

Canonical variational transition-state theory
Canonical variational transition-state comparative study for $M^+(=Li^+, Na^+$ and $K^+) + H_2O \rightarrow [M \cdot (H_2O)]^+$ association reactions, 241

Carbon
Multi-stage micropore filling mechanism of nitrogen on microporous and micrographitic carbons, 371
In situ infrared study of the surface oxidation of activated carbon in oxygen and carbon dioxide, 861
In situ infrared study of the modification of the surface of activated carbon by ammonia, water and hydrogen, 1881
Carbon cylinders: a class of closed-shell clusters, 2073
Study of ultramicroporous carbons by high-pressure sorption. Part 5.—CH_4 isotherm and diffusion kinetics, 2267
Fullerene cage clusters. The key to the structure of solid carbon, 2465
The structure of carbon clusters as studied by the Coulomb explosion method, 2469
Surface structure and catalysis for CO hydrogenation of the supported Ru species derived from the $Ru_3(CO)_{12}$ inorganic oxides, 2657
Fourier-transform infrared study of surface species on carbon mixed with KBr and reacted with CO_2, O_2 and CO, 3647

Carbon–carbon bond cleavage
Radiation-induced C—C bond cleavage in 1,2-diarylethanes as model compounds of coal. Part 1.—Pulse and steady-state radiolysis of 1,2-di(1-naphthyl)ethane, 311

Carbon deposition
Carbon deposition on nickel ferrites and nickel–magnetite surfaces, 867

Carbon dioxide
Adsorption of carbon dioxide on polycrystalline copper, 1889
High-resolution infrared spectroscopy of the $CO \cdot CO_2$ van der Waals molecule, 1943
Infrared spectroscopy of large CO_2 clusters, 2369

Interaction of carbon dioxide with clean and oxidised Nd/Cu(100), 2711

Carbon molecular sieve
Synthesis and characterisation of carbon molecular sieves. High-ash Indian coal, 3455

Carbon monoxide
Revisiting MgO–CO surface chemistry: an IR investigation, 703
Effect of oxidation–reduction treatments on the infrared spectra of carbon monoxide chemisorbed on a Ru/TiO_2 catalyst, 979
High-resolution infrared spectroscopy of the $CO \cdot CO_2$ van der Waals molecule, 1943
^{13}C and ^{14}C kinetic isotope effects in the reduction of CO over an Mg surface, 2283
Coadsorption and interaction of nitric oxide and carbon monoxide on Rh supported on highly dealuminated Y zeolite. Formation of mixed Rh carbonyl–nitrosyls on the surface, 2329
Surface structure and catalysis for CO hydrogenation of the supported Ru species derived from the $Ru_3(CO)_{12}$ inorganic oxides, 2657
CO adsorbed on Cu(100): RAIRS at ultrahigh vacuum and higher pressures, 2743
CO oxidation over small Pd particle model catalysts. A static secondary ion mass spectrometry study, 2749
Infrared spectroscopic surface characterization of zirconium oxide. Part 3.—The CO/CO_2 and CO/H_2O interactions at the surface of a high-area monoclinic preparation, 3003
Infrared study of the reaction of carbon monoxide and ammonia over supported rhodium catalysts, 3809

Carboxylic acid
The effect of carboxylic acids on the dissolution of calcite in aqueous solution. Part 2.—*d,l* and *meso*-Tartaric Acids, 137
Effect of carboxylic acids on the dissolution of calcite in aqueous solution. Part 3.—Polymaleic acid, 1517

Carboxymethyl cellulose
Viscoelastic and nuclear magnetic resonance studies on molecular mobility of carboxymethylcellulose–calcium complex in concentrated aqueous systems, 829

Catalysis
Promotion effect of Fe on the selectivity of Pd zeolite-X in methanol synthesis, 419
Influence of hydrogen chloride addition on the catalytic isomerization activity of chlorinated alumina and chlorinated platinum–alumina solids. Superacid behaviour, 567
Influence of pore confinement on the catalytic dehydration of isobutyl alcohol on H-ZSM-5, 581
Poisoning effects of Li^+ and F^- ions in alumina for N_2O decomposition, 711
Studies on the V_2O_5–TiO_2 system. Part 1.—TiO_2(rutile)–V_2O_5, 715
Studies on the V_2O_5–TiO_2 system. Part 2.—TiO_2(anatase)–V_2O_5, 723
Studies on the V_2O_5–TiO_2 system. Part 3.—Monolayers of V_2O_5, 731
Role of solid-state structure in propene hydrogenation with nickel catalysts, 739
Effect of oxidation–reduction treatments on the infrared spectra of carbon monoxide chemisorbed on a Ru/TiO_2 catalyst, 979
Reaction of methane with nitrous oxide over magnesium oxide at low temperatures, 1139
Oxidative coupling of methane over manganese oxide catalysts, 1607
Hydrogenolysis of alkanes. Part 5.—Effect of metal dispersion in ruthenium/alumina catalysts on the hydrogenolysis of propane and of n-butane, 2297
Surface structure and catalysis for CO hydrogenation of the supported Ru species derived from the $Ru_3(CO)_{12}$ inorganic oxides, 2657
Structure-sensitivity of the deactivation of Pd/SiO_2 for methylcyclopropane hydrogenolysis by CO, 2911
Tight-binding study of the adsorption of hydrogen on Pt, Au and Pt–Au (111) surfaces, 3793
Infrared study of the reaction of carbon monoxide and ammonia over supported rhodium catalysts, 3809

Catalyst characterization
Reduction of supported and unsupported palladium oxide catalysts using methane. Characterization of active oxides, 3671

Catalyst poisoning
Structure-sensitivity of the deactivation of Pd/SiO_2 for methylcyclopropane hydrogenolysis by CO, 2911

Catalytic dehydration
Mechanistic studies of the catalytic dehydration of isobutyl alcohol on NaH-ZSM-5, 3473

Catecholborane
S_1–S_0 electronic absorption and supersonic-jet fluorescence spectra of catecholborane: puckering potential for the five-membered ring, 3341

Cation-ordering transformation
Kinetics and mechanism of the cation-ordering transformation in Li_2TiO_3-Li_3NbO_4 solid solutions, 2979

Cellulose acetate membrane
Electromotive force studies of cellulose acetate membranes. Binding of divalent cations and membrane potentials of KCl–KF mixtures, 341

Ceramic
Atomic mechanisms of mass transport in ceramic nuclear fuel materials, 1243

Channel electrode
The effect of carboxylic acids on the dissolution of calcite in aqueous solution. Part 2.—*d,l* and *meso*-Tartaric Acids, 137
In situ electrochemical electron spin resonance. The catalytic (EC′) mechanism, 335
The photo-EC′ mechanism: reduction of t-butyl bromide by excited-state tetrachlorobenzoquinone radical anion, 2951

Chaos
Detailed bifurcation structure and new mixed-mode oscillations of the Belousov–Zhabotinskii reaction in a stirred flow reactor, 3695
Period doubling and chaos during the oscillatory ignition of the $CO + O_2$ reaction, 3701

Charged surface group
Effect of temperature on the point of zero charge and surface charge of TiO_2, 3437

Charge/induced-dipole interaction
Spectroscopy of the $H \cdots H^+$ and $D \cdots D^+$ charge/induced-dipole complexes, 1957

Charge percolation
Charge percolation in electroactive polymer films, 2905

Charge transfer
Electron donor–electron acceptor complexes of carbonyldi-imidazoles and thiocarbonyldi-imidazoles with iodine. Effect of solvent polarity, 293
Ionic solvation in water–co-solvent mixtures. Part 21.—Free energies of transfer of single ions from water into water–2-ethoxyethanol mixtures, 1471
Analysis of some significant processes for molecular polarization, 3525

Chemically induced dynamic electron polarisation spectroscopy
CIDEP and CIDNP studies of the hydrogen abstraction of 9,10-anthraquinone from xanthene, 253

Chemically induced dynamic nuclear polarisation spectroscopy
CIDEP and CIDNP studies of the hydrogen abstraction of 9,10-anthraquinone from xanthene, 253

Chemical potential gradient
Demixing, decomposition and degradation of oxides in chemical potential gradients, 1273

Chemiluminescence
Translational energy dependence of reaction dynamics in kinematically constrained systems. $Xe(^3P_2)$ + HCl, HBr, HI and CH_3I, 11
Mechanism of CuCl and CuO chemiluminescence in microwave-induced plasma afterglows at 300 K, 603
High-resolution excitation function by time profile crossed-beam chemiluminescence, 1017
A crossed molecular beam chemiluminescence study of the reactions F and Cl + $(NO)_2$, 1619

Chemisorption
Theoretical study of chemisorption of acetylene on the Cu(100) surface, 553
Interaction of methyl-, ethyl- and n-propyl-amines with metal films of iron, nickel, palladium and aluminium, 995
Chemisorption of linear and cyclic polymethylsiloxanes on alumina studied by Fourier-transform infrared spectroscopy, 1377
Hydrogen chemisorption on gas-phase transition-metal clusters, 2459
Infrared spectroscopic comparison of the chemisorbed species from ethane, propene, but-1-ene and *cis*- and *trans*-but-2-ene on Pt(111) and on a platinum/silica catalyst, 2757
Siloxane bridges as reactive sites on silica gel. Fourier transform infrared–photoacoustic spectroscopic analysis of the chemisorption of diborane, 3747
A comparative study of the chemisorption of ethene on three metal surfaces: Ni(111), Pd(111) and Pt(111), 4083

Chiral interactions
Chiral interactions of some *N*-acetyl-*N*′-methyl amino acid amides dissolved in *N,N*′-dimethylformamide, 1461

Chlorobenzene
A theoretical and topological study on the electroreduction of chlorobenzene derivatives, 329

Chloropentacyanocobaltate (838) ions
Kinetics of the solvolysis of chloropentacyanocobaltate (III) ions in water and in water–methanol mixtures, 1791

Chromatography
Relationship between retention of a solid solute in liquid and supercritical fluid chromatography and its solubility in the mobile phase, 855
Chromatographic behaviour of reversibly associating macromolecules. Part 1.—Theoretical model, 1103

Chromia/$AlPO_4$ catalyst
Infrared study of nitric oxide adsorption on a chromia/$AlPO_4$ ethene polymerisation catalyst, 577

Chromium
Oxidation kinetics of chromium(III) chloride, 525
Electron paramagnetic resonance study of retention of chromium(III), chromate or dichromate(VI) and copper(II) ions by thermotolerant *Hansenula polymorpha*, 2579
Modified chromium/silica gel catalysts: impregnation of the silica gel with titanylacetylacetonate and comparison with chromium on SiO_2 and TiO_2, 2783
Modified chromium/silica gel catalysts: impregnation of the silica gel with aluminium acetylacetonate and comparison with chromium on alumina (Alon-C) and SiO_2, 3153

Clathrate
Unexpectedly stable nitrogen, oxygen, carbon monoxide and argon clathrate hydrates from vapour-deposited amorphous solid water: an X-ray and two-step differential scanning calorimetry study, 3785

Clay
Metachromasy in clay minerals. Spectroscopic study of the adsorption of crystal violet by laponite, 1593
Swelling and dispersion of smectite clay colloids: determination of structure by neutron diffraction and small-angle neutron scattering, 3919

Closed-shell clusters
Carbon cylinders: a class of closed-shell clusters, 2073

Closed system
Development of oscillations in closed systems, 3365

Cluster
Computational studies of the formation of metal-oxide diatomics and clusters, 233
The cluster theory for electrolyte solutions. Its extension and its limitations, 1051
Infrared photodissociation of mass-selected molecular clusters, 1923
Ab initio studies of acetylene tetramer and pentamer, 1931
Carbon cylinders: a class of closed-shell clusters, 2073
Introductory Lecture: Clusters, melting, freezing

and phase transitions, 2343
Correlated walk model of the melting transition in small clusters, 2351
Infrared spectroscopy and dimer formation at the surface of medium-large argon clusters, 2361
Infrared spectroscopy of large CO_2 clusters, 2369
Photoionization and excitation energies of an Al atom in Ar_N clusters, 2375
Metastable decay of oxygen cluster cations and anions, 2395
Dynamics of cluster ion fragmentation, 2405
Magic numbers in mass spectra of large van der Waals clusters, 2411
Photophysics of clusters. Intracluster reactions and dynamics of dissociation processes, 2417
Metastable, collision-induced and laser-induced decomposition of $Ar_mN_{2a}^+$ ($m = 0, 1$) cluster ions in the gas phase, 2427
Non-resonant and resonant multiphoton ionization of $(NO)_a$ and Ar_aNO clusters with picosecond laser pulses, 2441
Hydrogen chemisorption on gas-phase transition-metal clusters, 2459
Fullerene cage clusters. The key to the structure of solid carbon, 2465
The structure of carbon clusters as studied by the Coulomb explosion method, 2469
Experimental study of the transition from van der Waals, over covalent to metallic bonding in mercury clusters, 2473
Photoelectron spectroscopy of silver and palladium cluster anions. Electron delocalization *versus* localization, 2483
Photoionization of Na, Cs, Ca and Ba oxide clusters, 2489
Aminotetrazine–argon, the world's smallest 'large gas-phase cluster', 2503
Weak interaction in benzene clusters, 2511
Alkali-metal clusters as prototypes of metal clusters, 2525
Collisional excitation and fragmentation of alkali-metal halide cluster ions, 2533
Photodissociation of metal cluster ions. Dissociation energies and optical spectroscopy, 2537
Structural and topological consequences of anisotropic interactions in clusters, 3505

Coadsorption
Donor–acceptor interactions between molecular coadsorbates on Ru(001), 2271

Coagulation
Steady-state cluster size distribution in stirred suspensions, 2133

Coal
Electron paramagnetic resonance of coals. New approaches to an old problem with multifrequency electron paramagnetic resonance and spin echo, 3185
Synthesis and characterisation of carbon molecular sieves. High-ash Indian coal, 3455

Coalescence
Steady-state cluster size distribution in stirred suspensions, 2133

Cobalt
Micellar effects upon the reactions of complex ions in solution. Part 4.—Kinetics of aquation and base hydrolysis of some *cis*-(chloro)(amine) bis(ethylenediamine)cobalt(III) complexes in the presence of neutral and anionic surfactants in an aqueous medium, 507
Tris(bipyridine)ruthenium(II)-photosensitized reduction of a Co^{III}-Schiff base complex in a network of gelatin hydrogel and in an aqueous gelatin solution, 609
Fourier-transform infrared study of the surface properties of cobalt oxides, 989
Genesis of zinc–cobalt promoted hydrotreating catalysts: adsorption isotherms of Zn and/or Co on Al_2O_3, 2765

Coinage metal atoms
Electron paramagnetic resonance spectra of coinage metal atoms trapped in evaporated alkali-metal chloride matrices at low temperatures, 2169

Collagen
Overgrowth of iron(III) phosphate on collagen, 2967

Collinear reaction
Isotope effects of the collinear reactions F + HBr, F + DBr and F + MuBr, 1689

Collision
Steric and repeated-collision effects in diffusion-controlled reactions in solution: Kinetics of formation of some iodine donor–acceptor complexes of sulphur compounds, 1549
New theoretical methods for molecular collisions: the complex angular-momentum approach, 1627
Collision dynamics of Cs + ICH_3 → CsI + CH_3: backward *vs.* sideways scattering as a function of collision energy, 2063
Collisional excitation and fragmentation of alkali-metal halide cluster ions, 2533

Colloid
Elastic modulus of crystal-like structures of deionized colloidal spheres in aqueous organic solvent mixtures, 151
Bridging flocculation of sticky hard spheres, 439
Rheology of colloidal suspensions. The isokinetic shear-flow hard-sphere model, 2121
Granular dynamics simulations of colloidal suspensions: scaling effects of stabilisation forces, 2593
Effects of Stern-layer conductance on electrokinetic transport properties of colloidal particles, 2859
Phase transition between liquid-like and crystal-like structures of deionized colloidal suspensions, 2871
Rheological and small-angle X-ray scattering investigations on the shape and ordered arrangement of native ovalbumin molecules in aqueous colloids, 2877
Effects of polydispersity on osmotic properties of colloidal suspensions, 3419
Simple determination of the osmotic pressure of sterically stabilised colloids, 3693
Variational approach to the electrostatic free energy in charged colloidal suspensions: general theory for open systems, 3901
Swelling and dispersion of smectite clay colloids: determination of structure by neutron diffraction and small-angle neutron scattering, 3919
Reduction of dinitrogen to ammonia in aqueous solution mediated by colloidal metals, 3927

Combinatorics
Steady-state cluster size distribution in stirred suspensions, 2133

Complexation
Calorimetric and spectrophotometric studies of complexation of manganese(II), cobalt(II) and nickel(II) with bromide ions in *N,N*-dimethylformamide, 271
Formation of chloro complexes of manganese(II), cobalt(II), nickel(II) and zinc(II) in dimethyl sulphoxide, 2179
Thermodynamic stability and structure of Tl_2Br^+ in molten alkali-metal nitrate, 2187
Electron paramagnetic resonance study of the reaction of group 11 metal atoms with higher alkenes in a rotating cryostat, 3329
Kinetic and equilibrium studies of the complexations of polymer-bound imidazole ligands with a macrocyclic cobalt(III) complex, 3537

Comproportionation
Kinetics of comproportionation of the bipyridilium salt *p*-cyanophenyl paraquat in propylene carbonate studied by rotating ring–disc electrodes, 3597

Computational chemistry
Computational studies of the formation of metal-oxide diatomics and clusters, 233
Computer modelling of a molybdenum disulphide catalyst, 697
Errors in rate constants due to subsequent reactions of monitored species, 1403
Electronic spectra and geometries of HgX_3^- in water and an assessment of various computing procedures for revealing hidden spectra, 1425
Temperature dependence of the equilibrium constant for iodine hydrolysis at temperatures between 25 and 120 °C, 1443
Iterative solution in quantum scattering theory. The log derivative Kohn approach, 1641
Theoretical modelling of an infinitely dilute irreversibly aggregating suspension, 2961
Computer simulation and solvatochromic studies of the solvation of a betaine in single and mixed solvent systems, 3725

Concentrated solution
Raman spectroscopic investigations of concentrated aqueous solutions of $InCl_3$ and of $InBr_3$, 3883

Concentration polarization
Theory of concentration polarization effects in electrodialysis on counter-ion selectivity of ion-exchange membranes with differing counter-ion distribution coefficients, 1857

Conductimetry
Diffusion coefficients for the ternary system $Ca(OH)_2$–H_3PO_4–water, 3093

Conducting film
Charge percolation in electroactive polymer films, 2905

Conductivity
Effect of pressure on the electrical conductivity of the molten dichlorides, bromides and iodides of cadmium, tin and lead, 123
Crystal and electronic structures of new molecular conductors tetramethylammonium and tetramethylarsonium complexes of $Pd(dmit)_2$, 361
Ion–solvent interactions of some ions in dipolar aprotic solvents at 25°C, 489
Dynamics of defects in superionic fluorites, 1177
Brillouin-scattering and computer-simulation studies of fast-ion conductors: a review, 1183
Conductivity and NMR study of ionic mobility in lithium oxide, 1239
Conductivity of tetra-alkylammonium salts in polyaromatic solvents, 1453
Polarization effects of poled ferroelectric substrates upon surface conductivity changes in phthalocyanine and SnO_2 films following gas adsorption, 2611

Conjugation
McClelland-type lower bound for total π-electron energy, 3373
Analysis of some significant processes for molecular polarization, 3525

Conversion
Conversion of 2-methylfuran to 2-methylthiophene over molecular sieves. Part 1.—Alkaline Y-zeolites, 193

Convolution voltammetry
Use of convolution voltammetry for the determination of single ionic Gibbs energies of transfer, 819

Copolymer
Infrared spectroscopic investigations of the adsorption of ethylene oxide–propylene oxide copolymers from CCl_4 on pyrogenic silica, 1389

Copper
Electron spin resonance study of soluble copper(II)–cellulose complexes, 65
Kinetics of the Langmuirian adsorption of Cu^{II} ions at the calcite/water interface, 129
Conformation and ring inversion in γ-butyrolactone. Part 2.—*Ab initio* and flexible model computations, 459
Theoretical study of chemisorption of acetylene on the Cu(100) surface, 553
Mechanism of CuCl and CuO chemiluminescence in microwave-induced plasma afterglows at 300 K, 603
Electron spin resonance and X-ray diffraction studies of copper(II)-ion-doped Zr_4-pillared montmorillonite clay, 691
Model calculations of chemical interactions. Part 2.—Intramolecular interactions and double-bond pyramidalization in polycyclic alkenes, 783
Reduction of Cu^{2+} cations supported on Y zeolites, 1007
Adsorption of carbon dioxide on polycrystalline copper, 1889
Computer-aided electron paramagnetic resonance spectroscopy in the speciation of pH-dependent equilibria for copper {[2,2′-[1-(1-ethoxyethyl)-1,2-ethanediylidene]bis[*N,N*-dimethylhydrazine-carbothioamidato]](2-)$N^2,N^{2'},S,S'$} complex, 2575
The role of copper and zinc oxide in methanol synthesis catalysts, 2683
Molecular-beam studies of methanol partial

oxidation on Cu(110), 2693
Interaction of carbon dioxide with clean and oxidised Nd/Cu(100), 2711
Kinetics and mechanism of the water-gas shift reaction catalysed by the clean and Cs-promoted Cu(110) surface: a comparison with Cu(111), 2725
CO adsorbed on Cu(100): RAIRS at ultrahigh vacuum and higher pressures, 2743
Solvation of copper(I) perchlorate in mixed solvent systems containing acetonitrile. A ^{63}Cu, ^{65}Cu and ^{31}P nuclear magnetic resonance study, 2847
Physicochemical properties of copper oxide loaded alumina in methane combustion, 3027
Gas-phase transport of hydrogen atoms in methanol synthesis over copper/zinc oxide catalysts?, 3151
Nature of the improved Raman scattering from α-copper phthalocyanine particles on a compacted electrode, 4065

Coriolis interaction
Rotational disintegration of polyatomic molecules, 3171

Correlated walk model
Correlated walk model of the melting transition in small clusters, 2351

Corrosion
Kinetics of corrosion of ruthenium dioxide hydrate by bromate ions under acidic conditions, 955
Fourier-transform infrared studies of the corrosion of nickel in aqueous cyanide media, 1083
TiO_2 corrosion during water photocleavage using Rh/TiO_2 suspensions, 3441

Coulomb explosion
The structure of carbon clusters as studied by the Coulomb explosion method, 2469

Counter-ion distribution coefficient
Theory of concentration polarization effects in electrodialysis on counter-ion selectivity of ion-exchange membranes with differing counter-ion distribution coefficients, 1857

CO + O_3 reaction
Period doubling and chaos during the oscillatory ignition of the CO + O_2 reaction, 3701

Critical curve
Critical curves of aqueous electrolytes related to ionization behaviour: new temperatures for sodium chloride solutions, 1807

Critical micelle concentration
Rapid measurement of critical micelle concentrations by a flow technique, 3487

Critical temperature
Critical curves of aqueous electrolytes related to ionization behaviour: new temperatures for sodium chloride solutions, 1807

Critical wetting
Critical wetting, flocculation of silica particles in near-critical lutidine–water mixtures and related phenomena, 2263

Cryostat
Electron paramagnetic resonance study of the reaction of ground-state aluminium atoms with a series of ethers in a rotating cryostat, 3321
Electron paramagnetic resonance study of the reaction of group 11 metal atoms with higher alkenes in a rotating cryostat, 3329

Cryptand
Solution thermodynamics of lanthanide(III) cations (La^{3+}, Pr^{3+} and Nd^{3+}) and cryptands in propylene carbon.. ·nd in acetonitrile, 89

Crystal
Bulk and surface thermody.amics of stoichiometric ionic crystals consisting of three ionic species, 631
Oxidation and crystallization behaviour of amorphous $Ni_{64}Zr_{36}$ alloy, 843
Electron spin resonance and proton ENDOR studies in potassium hydrogen oxalate single crystals, 899
Inhibitor effects on calcite growth at low supersaturations, 965
Porous crystal membranes, 1123
Ultrasonic monitoring of crystallization in an oil-in-water emulsion, 1147
Grain-boundary diffusion: an historical perspective, 1307
Morphological influence of functionalized and non-functionalized α, ω-dicarboxylates on calcite crystallization, 1873

Crystalline hydrates
A kinetic and microscopic investigation of the thermal dehydration of lithium sulphate monohydrate, 531

Crystallography
Structural aspects of the chlorocyclohexane/thiourea inclusion system, 1095

Crystal morphology
Formation of rod-like zinc oxide microcrystals in homogeneous solutions, 959

Crystal violet
Metachromasy in clay minerals. Spectroscopic study of the adsorption of crystal violet by laponite, 1593

Cyanate
The far-ultraviolet solution spectroscopy of cyanide, cyanate, selenocyanate and tellurocyanate. The solution spectroscopy of the NCX series, 257

Cyanide
The far-ultraviolet solution spectroscopy of cyanide, cyanate, selenocyanate and tellurocyanate. The solution spectroscopy of the NCX series, 257
Fourier-transform infrared studies of the corrosion of nickel in aqueous cyanide media, 1083

***p*-Cyanophenyl paraquat**
Kinetics of comproportionation of the bipyridilium salt *p*-cyanophenyl paraquat in propylene carbonate studied by rotating ring–disc electrodes, 3597

Cyclic lattice chain
Simulation of adsorption of deformable particles modelled as cyclic lattice chains. A simple statistical model of protein adsorption, 805

Cyclic voltammetry
Simultaneous electrochemical electron paramagnetic resonance investigation of the reduction of *p*-nitrobenzyl chloride, 3233

Cycloalkylmethyl radical
Cycloalkylmethyl radicals. Part 7.—Electron paramagnetic resonance characterisation of axial and equatorial centres in seven-membered alicyclic molecules, 3237

Cyclodextrin
Dual luminiscence of dimethylaminobenzonitrile in γ-cyclodextrin. Environmental effects on twisted intramolecular charge-transfer phenomenon, 53
Ultrasonic and electrochemical studies of the interactions of the drug chlorocyclizine hydrochloride with α-cyclodextrin and surfactant micelles, 1511

Cyclopropane
Reactions of cyclopropane and deuterium over supported metal catalysts, 3815

Cyclopropanol
Infrared spectra of cyclopropanol and ethenol, 2805

D_2^+
Relativistic corrections for the ground and first excited states of H_2^+, HD^+ and D_2^+, 3495

Deactivation
Poisoning effects of Li^+ and F^- ions in alumina for N_2O decomposition, 711

Dealumination
Dealumination of Zeolites with silicon tetrachloride vapour. Part 6.—Zeolites Li, NaX and Li, NaY, 199
Nuclear magnetic resonance study of the dealumination of an amorphous silica–alumina catalyst, 1599

Debye–Hückel approximation
How wrong is the Debye–Hückel approximation for dilute primitive model electrolytes with moderate Bjerrum parameter?, 1815

Decomposition
Kinetics of N_2O decomposition on Fe^{3+} supported on pure and Li-modified Al_2O_3, 185
Demixing, decomposition and degradation of oxides in chemical potential gradients, 1273
Mechanisms of peroxide decomposition: An electron paramagnetic resonance study of the reaction of the peroxomonosulphate anion ($HOOSO_3^-$) with Cu^I. A marked contrast in behaviour with that of Ti^{III} and Fe^{II}, 3261

Defect
Tracer diffusion techniques, 1151
Dynamics of defects in superionic fluorites, 1177
Concentration effects on defect stability in calcium fluoride, 1193
Structural and energetic aspects of defects in high-T_c oxides from atomistic lattice simulations, 1227
Defect energies for magnesium oxide and lithium oxide, 1233
Optical effects of defect diffusion in $Bi_4Ge_3O_{12}$ and $Bi_{12}GeO_{20}$ produced by ion implantation, 1287

Dehydration
Kinetics and mechanism of lignite dehydration, 1573

Density
Density measurement by oscillating tube. Effects of viscosity, temperature, calibration and signal processing, 145
Volumetric properties of aqueous solutions of alcohols and diols at 25°C, 3891

Dental apatite
Reaction characteristics of dental and synthetic apatites with Al^{3+} and La^{3+} ions in acidic solutions, 4025

Dental decay
Reaction characteristics of dental and synthetic apatites with Fe^{2+} and Fe^{3+} ions, 1071

Deuterium oxide
Raman spectra of concentrated solutions of magnesium and aluminium chloride in water and deuterium oxide, 471

Diacrylates
Thermal decay of trapped radicals produced during the photopolymerization of diacrylates, 3273

Diaminonaphthalenes
Effects of solvent and acid concentration on the absorption and fluorescence spectra of α,α-diaminonaphthalenes, 2095

1,2-Diarylethane
Radiation-induced C—C bond cleavage in 1,2-diarylethanes as model compounds of coal. Part 1.—Pulse and steady-state radiolysis of 1,2-di(1-naphthyl)ethane, 311

Diatomic molecule
A new method for calculating hyperfine splittings of strongly perturbed states: application to the a $^3\Pi$ state of CH^+, 1969

Dichlorofluoronitrosoethane
State-selective photochemistry: the predissociation dynamics of jet-cooled dichlorofluoronitrosomethane (CCl_2FNO) in the 600 nm region, 2049

Dicyanomethane
Dicyanomethane: microwave spectrum, quadrupole coupling and structure, 1981

Dielectric behaviour
Dielectric properties of urea and acetamide in aqueous solution, 321
Ultrasonic and dielectric behaviour of binary systems of methyl ethyl ketone with 1,2-dichloroethane, methylene chloride, trichloroethene, tetrachloroethene and cyclohexane, 645
Dielectric, ultrasonic and carbon-13 nuclear magnetic resonance relaxation measurements of t-butyl alcohol–water mixtures, 1493
Twisted non-charge-transfer electronically excited triplet states of aromatic aldehydes and ketones revealed by resonance Raman scattering and transient dielectric loss/interconversion between two populated triplet states, 2083
Permittivity at 70 GHz of water in aqueous solutions of some amino acids and related compounds, 3577
Influence of viscosity and dielectric relaxation on the intramolecular adiabatic proton transfer in the electronically excited free base of quinacrine, 3717

Diethyl ether
Reaction of ground-state aluminium ions with diethyl ether. Electron spin resonance evidence for insertion into the CH and CC bonds, 219

Differential scanning calorimetry
Unexpectedly stable nitrogen, oxygen, carbon monoxide and argon clathrate hydrates from vapour-deposited amorphous solid water: an X-ray and two-step differential scanning

calorimetry study, 3785
Differential thermal analysis
Nuclear magnetic resonance and differential thermal analysis studies of hydrogen molybdenum bronzes, H_xMoO_3, 1583
Diffuse reflectance Fourier transform infrared spectroscopy
In situ infrared study of the surface oxidation of activated carbon dispersed in potassium bromide, 2997
Diffusion
Molecular reorientation in acetonitrile. A comparison of diffusion coefficients from Raman bandshapes and nuclear magnetic resonance relaxation times, 593
Release of tritium from boron carbide, 651
Influence of polydispersity on dynamic light scattering measurements in concentrated suspensions, 1149
Tracer diffusion techniques, 1151
Nuclear magnetic resonance methods of studying mass transport in solids, 1157
Diffusion of Xe in UO_2, 1257
Mass transport in minerals, 1281
Atomic transport of trivalent impurities in silicon: diffusion, isotope effects, activation volumes, 1293
Diffusion, adsorption and desorption at surfaces, 1299
Grain-boundary diffusion: an historical perspective, 1307
Steric and repeated-collision effects in diffusion-controlled reactions in solution: Kinetics of formation of some iodine donor–acceptor complexes of sulphur compounds, 1549
Kinetics of partly diffusion-controlled reactions. Part 23.—The case of ionic reactions, 2145
Study of ultramicroporous carbons by high-pressure sorption. Part 5.—CH_4 isotherm and diffusion kinetics, 2267
Volterra integral equations for the determination of diffusion coefficients in fast pressure-jump sorption kinetics experiments, 3087
Diffusion coefficients for the ternary system $Ca(OH)_2$–H_3PO_4–water, 3093
Determination of diffusion coefficients and effective charge numbers of lignosulphonate. Influence of relative permittivity of the solvent, 3097
Frequency-response measurements of diffusion of xenon in silicalite-1, 3687
Dimerisation
First example of a pyrilium salt dimerisation in solution, 2819
Dimerisation of dimethyl sulphoxide in dipolar aprotic solvents using *R,S,R,S*-1,4,8,11-tetramethyl-1,4,8,11-tetra-azacyclotetradecane-nickel(II) as a probe, 2937
Dimethyl sulphoxide
Thermodynamics of complex formation in dimethyl sulphoxide. Silver(I) with quadridentate polyamines, 2841
1,4-Dinitrodurene
Re-examination of linewidth alternation in the electron paramagnetic resonance spectrum of the 1,4-dinitrodurene radical anion, 3253
1,4-Dioxane
Ultrasonic, dielectric and viscometric behaviour of binary systems of 1,4-dioxane with 1,2-dichloroethane, methylene chloride, trichloroethene, tetrachloroethene and cyclohexane, 3399
Photochromism of a surface-active spirobenzopyran moiety in dioxane–water mixtures and self-assembled surfactant aggregates, 3613
Diphenyl molecule
Calculated energetics of torsional motion in six diphenyl molecules: benzophenone, diphenyl ether, diphenyl sulphide, diphenyl sulphone, diphenylmethane and diphenyl, 3995
Dipole–dipole interaction
Dipole–dipole interactions between the terminal groups of 1,*n*-diarenecarboxy alkanes, $n = 1, 2, \ldots, 6$, 4011
Dipole moment
Permanent and induced dipole moments in electronically excited aromatic molecules. The polarizability in excited states, 2079
Discrete variable representations
Discrete variable representations of large-amplitude ro-vibrational states in a generalised coordinate system, 1963
Dismutation
Raman spectroscopic studies of the effects of tin promotion on a rhenium/alumina dismutation catalyst, 1603
Dispersed emission spectra
Laser-induced fluorescence from the predissociating formyl radical. Part 2.—Analysis of dispersed emission from the $\tilde{A}$–$\tilde{X}$ transition, 3837
Dispersion
Kinetics of hydrogen production from illuminated CdS/Pt/Na_2SO_3 and ZnS/Pt/Na_2S dispersions, 3637
Displacive transition
High–low displacive transition in the all-silica form of the $AlPO_4$-5 topology, 2341
Dissociation constant
Solution studies of haptens containing azobenzoate and substituted azobenzoate anions in water and in methanol, 501
Thermodynamics of sulphuric acid: apparent and partial molar heat capacities and volumes of aqueous HSO_4^- from 10–55°C and calculation of the second dissociation constant to 350°C, 2831
Dissolution
The effect of carboxylic acids on the dissolution of calcite in aqueous solution. Part 2.—*d,l* and *meso*-Tartaric Acids, 137
Dissolution kinetics of Carrera marble, Portland stone and several limestones in acid waters, 849
Dissolution kinetics of manganese oxides. Effects of preparation conditions, pH and oxidation/reduction from solution, 947
Kinetics for the surface-controlled dissolution of a powder dispersion with a log-normal distribution in particle size, 2163
Kinetics of redox dissolution of soft-centre particles, 3405
Distorted-wave approximation
Exact quantum dynamics and tests of the distorted-wave approximation for the $O(^3P)$ + HD reaction, 1705
DIVAH method
Isotope effects of the collinear reactions F + HBr, F + DBr and F + MuBr, 1689
DNA
Electron conduction and trapping in DNA. An electron spin resonance study, 591
Effects of ionising radiation on deoxyribonucleic acid. Part VI.—Effects of hydroxyl radical scavengers on radiation damage to DNA, 3267
Determination of the one-electron reduction potential of electron-affinic compounds intercalated into DNA, 3971
Donor–acceptor
Langmuir–Blodgett alignment of optically non-linear D-π-A materials, 1117
Steric and repeated-collision effects in diffusion-controlled reactions in solution: Kinetics of formation of some iodine donor–acceptor complexes of sulphur compounds, 1549
Donor–acceptor interactions between molecular coadsorbates on Ru(001), 2271
Double-charge-transfer spectroscopy
Electronically excited states of the CH_3I^{2+} ion, 2801
Double-layer potential
External surface adsorption of uranyl–hydroxo complexes on zeolite particles in relation to the double-layer potential, 4095
Drug delivery
Transdermal diffusion of drug molecules, 1317
Dye-photoinitiated polymerization
External magnetic field effect on the dye-photoinitiated polymerization of acrylamide, 3545
Dynamic light scattering
Scattering studies of microemulsions in low-density alkanes, 2883
Dynamics
Dynamics of cluster ion fragmentation, 2405
Mirror inversion of the low-symmetry ground-state structures of the methylcyclohexane and 1,1-dimethylcyclohexane radical cations. An electron paramagnetic resonance study, 3377
Dynamic viscosity
Ultrasonic, dielectric and viscometric behaviour of binary systems of 1,4-dioxane with 1,2-dichloroethane, methylene chloride, trichloroethene, tetrachloroethene and cyclohexane, 3399
Eigenstate-resolved spectrum
Eigenstate-resolved ν_1 spectrum of CF_3CCH: anharmonic couplings to the bath, 2071
Elastic modulus
Elastic modulus of crystal-like structures of deionized colloidal spheres in aqueous organic solvent mixtures, 151
Electrocatalysis
Electrocatalytic oxidation of mesoxalic acid on a polycrystalline platinum electrode modified by foreign metals, 1845
Rotating ring–disc electrode study of the enhanced oxygen evolution on an activated ruthenium electrode, 3743
Electrochemistry
Electrochemical study of the reaction between leucodye and Fe^{III} in dye-based photogalvanic systems, 105
In situ electrochemical electron spin resonance. The catalytic (EC') mechanism, 335
Reduction of maleate dianion at a mercury electrode in aqueous solution. A CEEC or CECE mechanism?, 657
Photochemical properties of PbS microcrystallites prepared in Nafion, 815
Ion–solvent interactions in mixtures of *N*-methyl-2-pyrrolidinone and *N*-methyl-2-thiopyrrolidinone, 823
Surface electrochemistry of the anodic Cl_2 evolution reaction at Pt. Influence of co-deposition of surface oxide species on adsorption of the Cl^- intermediate, 923
Application of scaled particle theory to the salting out of single hydrophobic ions, 931
Fourier-transform infrared studies of the corrosion of nickel in aqueous cyanide media, 1083
Kinetic study of the reduction of water to hydrogen by reduced methyl viologen mediated by platinised alumina, 1417
Effect of carboxylic acids on the dissolution of calcite in aqueous solution. Part 3.—Polymaleic acid, 1517
Application of microelectrodes to the study of the Li/Li^+ couple in dimethyl sulphoxide, 1851
Electrochemical study of ion transfer across the polypyrrole membrane between two electrolyte solutions, 2243
Insight into the intercalation problem of the Li/CuO cell by analytical electron spectroscopies, 3607
Rotating ring–disc electrode study of the enhanced oxygen evolution on an activated ruthenium electrode, 3743
Analytical X-ray photoelectron spectroscopic investigation of the modification of polybithiophene (pbT) under electrochemical cycling, 3769
Adsorption of acetamide at the mercury/aqueous solution interface, 4037
Electrode
Pulsed photoelectrochemistry of titanium dioxide, 1527
Nature of the improved Raman scattering from α-copper phthalocyanine particles on a compacted electrode, 4065
Electrodeposition
Electron paramagnetic resonance spectroscopy of electrodeposited species from solutions of 1,1'-bis-(*p*-cyanophenyl)-4-4'-bipyridilium (cyanophenyl paraquat, CPQ), 2583
Electrodialysis
Theory of concentration polarization effects in electrodialysis on counter-ion selectivity of ion-exchange membranes with differing counter-ion distribution coefficients, 1857
Electrokinetic transport
Effects of Stern-layer conductance on electrokinetic transport properties of colloidal particles, 2859
Electrolyte
Thermodynamic properties of electrolyte

solutions. EMF study of the system $NaCl–Na_2–SO_4–H_2O$ at 25, 35 and 45°C, 81
Raman spectra of concentrated solutions of magnesium and aluminium chloride in water and deuterium oxide, 471
The cluster theory for electrolyte solutions. Its extension and its limitations, 1051
Enthalpies and entropies of solution of electrolytes containing 4-hydroxyphenylazobenzoate and chloro-4-hydroxyphenylazobenzoate anions in water and in methanol. Derived single-ion values for the transfer of these anions from water to methanol, 1067
Critical curves of aqueous electrolytes related to ionization behaviour: new temperatures for sodium chloride solutions, 1807
Langevin dynamics simulations of electrolyte solutions. Influence of friction and random forces, 2139
Volume and entropy changes of water in electrolyte solutions below 0 °C, 2231
Thermodynamic analysis of pH-FET and ISFET response, 2249
Thermodynamics of transfer of electrolytes and ions from water to aqueous solutions of polyhydroxy compounds, 3107
Thermodynamic consistency in the symmetric Poisson–Boltzmann equation for primitive model electrolytes, 3383

Electromotive force
Thermodynamic properties of electrolyte solutions. EMF study of the system $NaCl–Na_2–SO_4–H_2O$ at 25, 35 and 45°C, 81
Electromotive force studies of cellulose acetate membranes. Binding of divalent cations and membrane potentials of KCl–KF mixtures, 341

Electron donor–electron acceptor complex
Electron donor–electron acceptor complexes of carbonyldi-imidazoles and thiocarbonyldi-imidazoles with iodine. Effect of solvent polarity, 293

π-Electron energy
McClelland-type lower bound for total π-electron energy, 3373

Electronic absorption spectroscopy
First example of a pyrilium salt dimerisation in solution, 2819
$S_1–S_0$ electronic absorption and supersonic-jet fluorescence spectra of catecholborane: puckering potential for the five-membered ring, 3341

Electronic emission spectroscopy
Electronic emission spectroscopy and decay dynamics of Group IV tetrabromo molecular ions, 2021

Electronic spectroscopy
Electronic spectra and geometries of HgX_3^- in water and an assessment of various computing procedures for revealing hidden spectra, 1425

Electronic structure
Electronic structure and quadrupole couplings of the heterocycles 2-imidazolidinone, 2-imidazolidinethione and 2-imidazolidineselenone by the MS-LDA method, 889

Electronic transition
High-resolution laser photofragment spectrum of $N_2^+(^1\Pi_u–^1\Sigma_g^+)$, 2005
Rotational contour analysis of the 0_0^0 band of the $\tilde{A}\,^1A_u–\tilde{X}\,^1A_g$ electronic transition of *trans*-oxalyl fluoride, 2015
Spectroscopic and photochemical perturbations of weak interactions on electronic surfaces of methyl iodide, 2043

Electron-impact ionization
Electronic emission spectroscopy and decay dynamics of Group IV tetrabromo molecular ions, 2021

Electron microscopy
A kinetic and microscopic investigation of the thermal dehydration of lithium sulphate monohydrate, 531

Electron paramagnetic resonance spectroscopy
Electron spin resonance study of soluble copper(II)-cellulose complexes, 65
Generation of paramagnetic vanadium species in ZSM-5 and investigation of their interaction with framework aluminium nuclei by electron spin resonance and electron spin echo modulation, 189
Reaction of ground-state aluminium ions with diethyl ether. Electron spin resonance evidence for insertion into the CH and CC bonds, 219
In situ electrochemical electron spin resonance. The catalytic (EC') mechanism, 335
Radical anions of nitrobenzene on MgO and Al_2O_3, as investigated by electron spin resonance and electron nuclear double resonance spectroscopies, 403
Electron conduction and trapping in DNA. An electron spin resonance study, 591
Photoelectrochemical electron spin resonance. Part 4.—The 'photo-ECE' reaction and the reduction of 1-halogenoanthraquinones, 663
A combined ESR/X-ray diffraction study of the $Y_2O_3–BaO–CuO$ phase diagram, 675
ESR studies of high critical-temperature superconductors. Absorption at low magnetic fields, 683
Electron spin resonance and X-ray diffraction studies of copper(II)-ion-doped Zr_4-pillared montmorillonite clay, 691
Electron spin resonance and proton ENDOR studies in potassium hydrogen oxalate single crystals, 899
Electron paramagnetic resonance spectra of coinage metal atoms trapped in evaporated alkali-metal chloride matrices at low temperatures, 2169
Radical cation of $HP(O)(OMe)_2$: electron paramagnetic resonance evidence for competition between bonding to solvent, a 1,2-hydrogen shift, and a 1,4-hydrogen shift, 2173
Kinetic and electron paramagnetic resonance studies of photochemical reactions of gas mixtures of methane, ammonia and water, 2565
Electron paramagnetic resonance, ENDOR and TRIPLE resonance of some 9,10-anthraquinone radicals in solution. Part 3.—Hydroxyanthraquinones, 2569
Computer-aided electron paramagnetic resonance spectroscopy in the speciation of pH-dependent equilibria for copper {[2,2'-[1-(1-ethoxyethyl)-1,2-ethanediylidene]bis[*N*,*N*-dimethylhydrazine-carbothioamidato]](2-)N^2,$N^{2'}$,*S*,*S*'} complex, 2575
Electron paramagnetic resonance study of retention of chromium(III), chromate or dichromate(VI) and copper(II) ions by thermotolerant *Hansenula polymorpha*, 2579
Electron paramagnetic resonance spectroscopy of electrodeposited species from solutions of 1,1'-bis-(*p*-cyanophenyl)-4-4'-bipyridilium (cyanophenyl paraquat, CPQ), 2583
Electron paramagnetic resonance and gas chromatographic study of ethene dimerization catalysed by Rh/SiO_2: effect of silica pore size, 3015
Solid-state incorporation of Mn^{2+} ions in H-ZSM-5 zeolite, 3033
Mechanisms of methylene blue electrode processes studied by *in situ* electron paramagnetic resonance and ultraviolet–visible spectroelectrochemistry, 3125
The Bruker Lecture. Modern techniques in electron paramagnetic resonance spectroscopy, 3173
Spectral–spatial electron paramagnetic resonance imaging of electrochemically generated radicals, 3181
Electron paramagnetic resonance of coals. New approaches to an old problem with multifrequency electron paramagnetic resonance and spin echo, 3185
Electron paramagnetic resonance and ENDOR study of semiquinones in reversed micelles, 3191
2 mm electron paramagnetic resonance studies of the new types of imidazoline nitroxide radicals, 3201
Nitroxide radicals formed by addition of phosphorus-centred radicals to aliphatic oximes. An electron paramagnetic resonance study, 3207
ENDOR study of nitronylnitroxides in frozen solution, 3211
Electron paramagnetic resonance study of spin-trapped free radicals in the hydrosilylation of septamethylvinyltrisiloxane using benzophenone as an initiator, 3221
Electron paramagnetic resonance study of silacyclohexyl and 1-methylsilacyclohexyl radicals, 3229
Simultaneous electrochemical electron paramagnetic resonance investigation of the reduction of *p*-nitrobenzyl chloride, 3233
Cycloalkylmethyl radicals. Part 7.—Electron paramagnetic resonance characterisation of axial and equatorial centres in seven-membered alicyclic molecules, 3237
Electron paramagnetic resonance spectroscopy of hetero[5]annulenes, 3243
Kinetic electron paramagnetic resonance study of the reactions of t-butylperoxyl radicals in aqueous solution, 3247
Re-examination of linewidth alternation in the electron paramagnetic resonance spectrum of the 1,4-dinitrodurene radical anion, 3253
Electron paramagnetic resonance, ENDOR and TRIPLE resonance of some 9,10-anthraquinol radicals in solution. Part 4.—Anthraquinolsulphonates, 3257
Mechanisms of peroxide decomposition: An electron paramagnetic resonance study of the reaction of the peroxomonosulphate anion ($HOOSO_3^-$) with Cu^I. A marked contrast in behaviour with that of Ti^{III} and Fe^{II}, 3261
Effects of ionising radiation on deoxyribonucleic acid. Part VI.—Effects of hydroxyl radical scavengers on radiation damage to DNA, 3267
Thermal decay of trapped radicals produced during the photopolymerization of diacrylates, 3273
Structure and reactivity of peroxyl and sulphoxyl radicals from measurement of oxygen-17 hyperfine couplings: relationships with Taft substituent parameters, 3279
Theoretical study of the hex-3-ene radical cation, 3287
Three-electron σ-bonded radicals: an electron paramagnetic resonance spectroscopic study of $R_3P^{+\bullet}Cl$ radicals in freon, 3293
Matrix effects on the photodissociation of alkane radical cations. Part 1.—Nature of the photodissociation of heptane radical cations in perfluorohexane and 1,1,2-trichlorotrifluoroethane matrices at cryogenic temperatures, 3299
Electron paramagnetic resonance study of imine radical cations in low-temperature solid matrices, 3303
High-voltage electron paramagnetic resonance study of some electro-rheological fluids, 3309
Electron paramagnetic resonance study of the reaction of ground-state aluminium atoms with a series of ethers in a rotating cryostat, 3321
Electron paramagnetic resonance study of the reaction of group 11 metal atoms with higher alkenes in a rotating cryostat, 3329
A first radical cation chelate ligand: electron paramagnetic resonance spectra of singly reduced 3,3'-diazamethylviologen $DAMV^{+\bullet}$ and the rhenium(I) complex $[(DAMV^{+\bullet})Re^+(CO)_3(PPh_3)]^{2+}$, 3337
Mirror inversion of the low-symmetry ground-state structures of the methylcyclohexane and 1,1-dimethylcyclohexane radical cations. An electron paramagnetic resonance study, 3377
Low-field microwave absorption in mechanical mixes of superconducting $YBa_2Cu_3O_{7-x}$ with Al_2O_3 and $BaPbO_3$, 3829

Electron spectroscopy
Insight into the intercalation problem of the Li/CuO cell by analytical electron spectroscopies, 3607

Electron spin echo
Generation of paramagnetic vanadium species in ZSM-5 and investigation of their interaction with framework aluminium nuclei by electron spin resonance and electron spin echo modulation, 189
Electron paramagnetic resonance of coals. New approaches to an old problem with multifrequency electron paramagnetic resonance and spin echo, 3185

Electron transfer
Pulse radiolyses of anthraquinone and anthraquinone–triethylamine in acetonitrile

and toluene at room temperature, 95
Photoinduced electron transfer in viologen-linked porphyrins (p-PC_nV), 811
Kinetic salt effects in intramolecular electron transfer, 937
Photochemical electron transfer across surfactant bilayers mediated by 2,1,3-benzothiadiazole-4,7-dicarbonitrile, 2897
The photo-EC' mechanism: reduction of t-butyl bromide by excited-state tetrachlorobenzoquinone radical anion, 2951
Primary kinetic isotope effects on acid-catalysed reduction of *p*-benzoquinone derivatives by an acid-stable NADH analogue, 3531
Rose bengal radicals and their reactivity, 3879
Electron trapping
Electron conduction and trapping in DNA. An electron spin resonance study, 591
Electroreduction
A theoretical and topological study on the electroreduction of chlorobenzene derivatives, 329
Electro-rheological fluid
High-voltage electron paramagnetic resonance study of some electro-rheological fluids, 3309
Electrostatic property
Calculations on electrostatic properties of HY zeolite, 3461
Variational approach to the electrostatic free energy in charged colloidal suspensions: general theory for open systems, 3901
Emission spectra
High-resolution laser photofragment spectrum of $N_2^{2+}(^1\Pi_u{-}^1\Sigma_g^+)$, 2005
Emulsion
Ultrasonic monitoring of crystallization in an oil-in-water emulsion, 1147
ENDOR
Radical anions of nitrobenzene on MgO and Al_2O_3, as investigated by electron spin resonance and electron nuclear double resonance spectroscopies, 403
Electron spin resonance and proton ENDOR studies in potassium hydrogen oxalate single crystals, 899
ENDOR studies of π-electron delocalization in covalently linked porphyrin dimers. Model systems for the primary donor in photosynthesis?, 1087
Electron paramagnetic resonance, ENDOR and TRIPLE resonance of some 9,10-anthraquinone radicals in solution. Part 3.—Hydroxyanthraquinones, 2569
Electron paramagnetic resonance and ENDOR study of semiquinones in reversed micelles, 3191
Single-crystal ENDOR study of γ-irradiated *p*-nitrophenol, 3197
ENDOR study of nitronylnitroxides in frozen solution, 3211
Electron paramagnetic resonance, ENDOR and TRIPLE resonance of some 9,10-anthraquinol radicals in solution. Part 4.—Anthraquinolsulphonates, 3257
Energy transfer
Kinetics and energy transfer in the thermal decomposition of 2-methyloxetane and 3-methyloxetane, 21
Energy transfer in polyatomic molecules. Anharmonic couplings in H^+–CF_4 collisions, 1663
Enthalpy
Enthalpies and entropies of sublimation, vaporization and fusion of nine polyhydric alcohols, 75
Enthalpies and entropies of solution of electrolytes containing 4-hydroxyphenylazobenzoate and chloro-4-hydroxyphenylazobenzoate anions in water and in methanol. Derived single-ion values for the transfer of these anions from water to methanol, 1067
Chiral interactions of some *N*-acetyl-*N'*-methyl amino acid amides dissolved in *N*,*N'*-dimethylformamide, 1461
Calorimetric and spectroscopic studies of LiSCN solutions in aprotic solvents, 3103
Thermodynamics of transfer of electrolytes and ions from water to aqueous solutions of polyhydroxy compounds, 3107
Enthalpies of interaction of some *N*-acetyl amino acid amides dissolved in *N*-methylformamide at 298.15 K, 3737
Entrance-channel dynamics
The non-reactive j_z-conserving approximation as a probe for the entrance-channel dynamics in reactive collisions: $H + H_2$, 1669
Entropy
Enthalpies and entropies of sublimation, vaporization and fusion of nine polyhydric alcohols, 75
Enthalpies and entropies of solution of electrolytes containing 4-hydroxyphenylazobenzoate and chloro-4-hydroxyphenylazobenzoate anions in water and in methanol. Derived single-ion values for the transfer of these anions from water to methanol, 1067
The entropy of a point defect in an ionic crystal, 1197
Volume and entropy changes of water in electrolyte solutions below 0 °C, 2231
Thermodynamics of transfer of electrolytes and ions from water to aqueous solutions of polyhydroxy compounds, 3107
Equation of state
Association and semiempirical equations of state, 2823
Equilibrium constant
Temperature dependence of the equilibrium constant for iodine hydrolysis at temperatures between 25 and 120 °C, 1443
Equilibrium geometry
Theoretical study of the hex-3-ene radical cation, 3287
Ethanal
The adsorption of ethanal by some type A zeolites. A Fourier-transform infrared study, 205
Ethene
Infrared studies of ethene hydrogenation over ZrO_2. Part 2.—Ethane adsorption, 3665
Ethanol
Thermal desorption of ethanol from pentasil zeolites, 2337
Ethene
Electron paramagnetic resonance and gas chromatographic study of ethene dimerization catalysed by Rh/SiO_2: effect of silica pore size, 3015
Infrared studies of ethene hydrogenation over ZrO_2. Part 1.—Ethene adsorption, 3021
Ethenol
Infrared spectra of cyclopropanol and ethenol, 2805
Ether
Electron paramagnetic resonance study of the reaction of ground-state aluminium atoms with a series of ethers in a rotating cryostat, 3321
Ethylbenzene
Adsorption of benzene and ethylbenzene on the acidic and basic sites of beta-zeolite, 431
Ethyl iodide–xylene mixtures
Thermodynamics of molecular interactions in ethyl iodide–xylene mixtures, 2203
EUROPT-1
Transformations of n-hexane over EUROPT-1: fragments and C_6 products on fresh and partially deactivated catalyst, 3159
EXAFS
EXAFS study of thin-film zirconium oxide deposited on a TiO_2 surface, 467
Extended X-ray absorption fine structure and ^{129}Xe nuclear magnetic resonance evidence for highly dispersed molybdenum clusters in zeolite Y, 1015
Extended X-ray absorption fine structure study of polynuclear cationic selenium clusters, 1579
Structure and behaviour of $Ru_3(CO)_{12}$ supported on inorganic oxide surfaces, studied by EXAFS, infrared spectroscopy and temperature-programmed decomposition, 2645
Excess property
Excess molar enthalpy of steam–n-octane up to 648.2 K and 10.0 MPa, 69
Density measurement by oscillating tube. Effects of viscosity, temperature, calibration and signal processing, 145
Thermodynamic studies on the structure of iso-dielectric binary mixtures of methanol with ethylene glycol, acetonitrile, nitrobenzene and nitromethane, 1477
Thermodynamics of molecular interactions in ethyl iodide–xylene mixtures, 2203
Excess molar Gibbs energies of mixing of water and 1,1,1,3,3,3-hexafluoropropan-2-ol mixtures at 298.15 K, 2209
Thermodynamic properties of ternary non-electrolyte solutions. Part 3.—Excess molar volumes of 2-propanone–tribromomethane–alkane mixtures, 2853
Exchange
C—H exchange reaction of methoxide species on an Sm_2O_3 catalyst observed by *in situ* infrared spectroscopy, 3489
Excitation function
High-resolution excitation function by time profile crossed-beam chemiluminescence, 1017
Excitation spectrum
Laser-induced fluorescence excitation spectrum and radiative lifetime of Cl_2^+, 2009
Excited state
Kinetic study of the collisional behaviour of $Mg(3\,^3P_J)$ with alkanes at elevated temperatures following pulsed dye-laser excitation, 795
Electronically excited states of the CH_3I^{2+} ion, 2801
Extended nearly ideal binary solvent model
Thermochemical investigations of associated solutions. Part 11.—Calculation of pyrene–dichlorobutane association parameters from measured solubility data, 2197
External magnetic field effect
External magnetic field effect on the dye-photoinitiated polymerization of acrylamide, 3545
Far-ultraviolet spectroscopy
The far-ultraviolet solution spectroscopy of cyanide, cyanate, selenocyanate and tellurocyanate. The solution spectroscopy of the NCX series, 257
Fast-ion conductor
Atomistic mechanisms of ionic transport in fast-ion conductors, 1167
Brillouin-scattering and computer-simulation studies of fast-ion conductors: a review, 1183
Faujasitic zeolites
Occurrence and removal of hydroxide precipitates on ion-exchanged faujasite-type zeolites: zinc molecular sieves, 1899
Fermi electron gas
Alkali-metal clusters as prototypes of metal clusters, 2525
Ferroelectric
Photocatalytic activities of potassium-doped lead niobates and the effect of poling, 2277
Polarization effects of poled ferroelectric substrates upon surface conductivity changes in phthalocyanine and SnO_2 films following gas adsorption, 2611
Film
Polarization effects of poled ferroelectric substrates upon surface conductivity changes in phthalocyanine and SnO_2 films following gas adsorption, 2611
Physicochemical properties of a novel nitrogen-containing plasma-deposited ultrathin film, 2971
Flash photolysis
Flash-photolysis study of the 4-(methyl sulphonate)-benzophenone ketyl radical anion in alcohol–water mixtures, 619
Flash photolysis study of the spectra and self-reactions of neopentylperoxy and t-butylperoxy radicals, 2927
Flocculation
Bridging flocculation of sticky hard spheres, 439
Critical wetting, flocculation of silica particles in near-critical lutidine–water mixtures and related phenomena, 2263
Flow technique
Rapid measurement of critical micelle concentrations by a flow technique, 3487
Fluorescence
Methyl and vinyl torsional potential functions in 4-methylstyrene from supersonic jet fluorescence spectroscopy, 217
Interpretation of frequency-dependent nuclear

magnetic resonance relaxation data from micelles formed in the 6-(dimethyleicosylammonio)hexanoate–water system, 1555
Effects of solvent and acid concentration on the absorption and fluorescence spectra of α,ω-diaminonaphthalenes, 2095
Limiting fluorescence anisotropies of perylene and xanthene derivatives, 2103
Limiting fluorescence anisotropies of perylene and xanthene derivatives, 2103
Kinetics of fluorescence quenching of π(9-anthroyloxy) stearic acids by tertiary amines in non-ionic micelles of triton X-100, 2155
First example of a pyrilium salt dimerisation in solution, 2819
S_1–S_0 electronic absorption and supersonic-jet fluorescence spectra of catecholborane: puckering potential for the five-membered ring, 3341
Resolution of heterogeneous fluorescence by the combined use of indirect excitation decay-associated spectral analysis and principal factor analysis, 3853
Dipole–dipole interactions between the terminal groups of 1,n-diarenecarboxy alkanes, $n = 1, 2, \ldots, 6$, 4011
Fluorescence quenching of pyrene by *N*-hexadecyl pyridinium chloride in mixed anionic micelles, 4043
Fluorine
Preferred transition-state geometry in the reaction of fluorine atoms with iodomethane molecules, 2059
Fluorite
Dynamics of defects in superionic fluorites, 1177
Formyl radical
Laser-induced fluorescence from the predissociating formyl radical. Part 2.—Analysis of dispersed emission from the $\tilde{A}$–$\tilde{X}$ transition, 3837
Fourier-transform electron paramagnetic resonance
The Bruker Lecture. Modern techniques in electron paramagnetic resonance spectroscopy, 3173
Fourier-transform infrared–photoacoustic spectroscopy
Siloxane bridges as reactive sites on silica gel. Fourier transform infrared–photoacoustic spectroscopic analysis of the chemisorption of diborane, 3747
Fourier-transform infrared spectroscopy
Fourier-transform infrared study of the surface properties of cobalt oxides, 989
Fourier-transform infrared studies of the corrosion of nickel in aqueous cyanide media, 1083
Adsorption of ammonia and methylamines on alumina and copper/alumina studied by dynamic Fourier-transform infrared experiments, 1131
Chemisorption of linear and cyclic polymethylsiloxanes on alumina studied by Fourier-transform infrared spectroscopy, 1377
A Fourier-transform spectral-ratioed reinvestigation of the infrared spectra from H_2 and D_2 absorbed on ZnO at room temperature and at 160 °C, 1615
Surface chemistry of Rh carbonyls and nitrosyls on dealuminated Y-zeolite at low temperature, 2321
Infrared studies of ethene hydrogenation over ZrO_2. Part 1.—Ethene adsorption, 3021
Modified chromium/silica gel catalysts: impregnation of the silica gel with aluminium acetylacetonate and comparison with chromium on alumina (Alon-C) and SiO_2, 3153
Mechanistic studies of the catalytic dehydration of isobutyl alcohol on NaH-ZSM-5, 3473
Proton polarizability of $N^+H \cdots N \rightleftharpoons N \cdots H^+N$ hydrogen bonds and far-infrared continua of nitrogen-base systems. A Fourier-transform infrared spectroscopic study, 3557
Fourier-transform infrared study of surface species on carbon mixed with KBr and reacted with CO_2, O_2 and CO, 3647
Surface structures of molybdenum oxide highly dispersed on ZrO_2 and oxidation of propan-2-ol, 3659
Fourier-transform infrared, scanning electron microscopy and magic-angle-spinning nuclear magnetic resonance studies of silicalite synthesized in non-alkaline media, 3679
Fourier-transform infrared spectroscopic measurement of salt imbibition by zeolites, 3683
Fourier-transform infrared study of the oxidative thermolysis of tetramethyltin in the temperature range 533–613 K, 4059
Fourier-transform microwave spectroscopy
Rotational spectrum of $(CH_3)_3P \cdots HCl$ and a comparison of properties within the series of axially symmetric dimers $R_3Y \cdots HCl$, where Y = N or P and R = H or CH_3, 1915
Fragmentation
Dynamics of cluster ion fragmentation, 2405
Collisional excitation and fragmentation of alkali-metal halide cluster ions, 2533
Framework aluminium
Generation of paramagnetic vanadium species in ZSM-5 and investigation of their interaction with framework aluminium nuclei by electron spin resonance and electron spin echo modulation, 189
Free energy of transfer
Thermodynamics of transfer of electrolytes and ions from water to aqueous solutions of polyhydroxy compounds, 3107
Free radical
Rate constants for the reactions of CH_3O and C_2H_5O with NO_2 over a range of temperature and total pressure, 1751
Rate constants for the reactions of CH_3O and C_2H_5O with NO over a range of temperature and total pressure, 1757
Temperature dependence of reactions of the nitrate radical with alkanes, 2109
Reaction of CH_3 radicals with methanol in the range $525 \leqslant T/K \leqslant 603$, 2553
External magnetic field effect on the dye-photoinitiated polymerization of acrylamide, 3545
Freezing
Introductory Lecture: Clusters, melting, freezing and phase transitions, 2343
Frequency response
Frequency-response measurements of diffusion of xenon in silicalite-1, 3687
Friction
Langevin dynamics simulations of electrolyte solutions. Influence of friction and random forces, 2139
Fullerene
Fullerene cage clusters. The key to the structure of solid carbon, 2465
Fusion
Enthalpies and entropies of sublimation, vaporization and fusion of nine polyhydric alcohols, 75
Gallic acid
Thermal and photochemical production of hydrogen peroxide from dioxygen and tannic acid, gallic acid and other related compounds in aqueous solution, 2587
Gallium
Thermodynamics of gallium(III) and indium(III) monoazide complexes in dimethyl sulphoxide solutions, 1467
Gas chromatography
Electron paramagnetic resonance and gas chromatographic study of ethene dimerization catalysed by Rh/SiO_2: effect of silica pore size, 3015
Stability constants of hydrazoic acid–tributyl phosphate complexes in hexadecane solution, 3561
Gas-phase reaction
Absolute rate constants for the gas-phase reactions of silylene with silane, disilane and the methylsilanes, 27
Gas-phase transport
Gas-phase transport of hydrogen atoms in methanol synthesis over copper/zinc oxide catalysts?, 3151
Gelatin
Tris(bipyridine)ruthenium(II)-photosensitized reduction of a Co^{III}-Schiff base complex in a network of gelatin hydrogel and in an aqueous gelatin solution, 609
Gibbs adsorption equation
Thermodynamic analysis of pH-FET and ISFET response, 2249
Gibbs free energy
Excess molar Gibbs energies of mixing of water and 1,1,1,3,3,3-hexafluoropropan-2-ol mixtures at 298.15 K, 2209
Glass
Indirect evidence for hydration forces in the deposition of polystyrene latex colloids on glass surfaces, 1623
Glucose
Adsorptive interactions of glucose and carbon dioxide with basic sites over alumina, 1885
Glutathione S-transferase
Haem peptide–protein interactions. Part 3.—The kinetics and mechanism of the interaction between human placental glutathione S-transferase π and the non-substrate ligand microperoxidase-8 (MP-8), 1797
Haem peptide–protein interactions. Part 4.—The microperoxidase-8-mediated inhibition of the human placental glutathione S-transferase π catalysed conjugation of glutathione and 1-chloro-2,4-dinitrobenzene, 1803
Glycine
Studies on positronium–glycine complex formation using a positron annihilation lifetime spectrometer with BaF_2 detectors, 623
Gold surface
Adsorption of oxygen on potassium- and barium-dosed Au surfaces: X-ray photoelectron and ultraviolet photoelectron spectroscopy studies, 1893
Grafted polymer
Strong-stretching and Scheutjens–Fleer descriptions of grafted polymer brushes, 1349
Grain-boundary
Grain-boundary diffusion: an historical perspective, 1307
Modelling oxide–oxide and oxide–metal interfaces, 1311
Granular dynamics
Granular dynamics simulations of colloidal suspensions: scaling effects of stabilisation forces, 2593
Graph theory
Why can so few benzenoids be completely drawn with Clar's resonant sextets? An analysis using 'branching graphs' and a 'coiled hexagon code', 447
Calculating the characteristic polynomial, eigenvectors and number of spanning trees of a hexagonal system, 1033
Green function
The ground-state energies of three-body Coulomb systems calculated by the short-time Green function Monte Carlo method, 43
Group 11 metal
Electron paramagnetic resonance study of the reaction of group 11 metal atoms with higher alkenes in a rotating cryostat, 3329
Group III metal
Photocurrent kinetics of Group III metal–(phthalocyaninato)–halogen complexes in vacuum and oxidising gas atmospheres, 115
Group IV tetrabromo molecular ion
Electronic emission spectroscopy and decay dynamics of Group IV tetrabromo molecular ions, 2021
Group theory
Correlation functions in non-Newtonian couette flow. A group theory and molecular dynamics approach, 1041
H_2^+
Relativistic corrections for the ground and first excited states of H_2^+, HD^+ and D_2^+, 3495
H_2SO_4/SiO_2-mounted catalyst
Titration of H_2SO_4/SiO_2-mounted catalysts in cyclohexane with pyridine based on a new acidity function considering the effect of physisorption sites, 3447
Haem peptide–protein interactions
Haem peptide–protein interactions. Part 3.—The kinetics and mechanism of the interaction between human placental glutathione S-transferase π and the non-substrate ligand microperoxidase-8 (MP-8), 1797
Haem peptide–protein interactions. Part 4.—The microperoxidase-8-mediated inhibition of the

human placental glutathione S-transferase π catalysed conjugation of glutathione and 1-chloro-2,4-dinitrobenzene, 1803
Halogen
Photocurrent kinetics of Group III metal–(phthalocyaninato)–halogen complexes in vacuum and oxidising gas atmospheres, 115
Halogenoanthraquinone
Photoelectrochemical electron spin resonance. Part 4.—The 'photo-ECE' reaction and the reduction of 1-halogenoanthraquinones, 663
Hansenula polymorpha
Electron paramagnetic resonance study of retention of chromium(III), chromate or dichromate(VI) and copper(II) ions by thermotolerant *Hansenula polymorpha*, 2579
Hapten
Solution studies of haptens containing azobenzoate and substituted azobenzoate anions in water and in methanol, 501
Solution thermodynamics of haptens containing 4-hydroxyphenylazobenzoate and substituted 4-hydroxyphenylazobenzoate anions in *N,N*-dimethylformamide, 2193
Hard cation
Ion–solvent interactions in mixtures of *N*-methyl-2-pyrrolidinone and *N*-methyl-2-thiopyrrolidinone, 823
Hard-sphere model
Rheology of colloidal suspensions. The isokinetic shear-flow hard-sphere model, 2121
Harmonic vibrational frequency
Structures, energies and harmonic vibrational frequencies for the reactions of NH with NO and NO_2, 3519
HD^+
Relativistic corrections for the ground and first excited states of H_2^+, HD^+ and D_2^+, 3495
Heat capacity
Thermodynamics of sulphuric acid: apparent and partial molar heat capacities and volumes of aqueous HSO_4^- from 10–55°C and calculation of the second dissociation constant to 350°C, 2831
Thermodynamic properties of peptide solutions. Part 6.—The amino acid side-chain contributions to the partial molar volumes and heat capacities of some tripeptides in aqueous solution, 3117
Hetero[5]annulenes
Electron paramagnetic resonance spectroscopy of hetero[5]annulenes, 3243
Heterogeneous catalysis
Homogeneous and heterogeneous metal-catalysed hydrogen isotope exchange of nitrobenzene with tritium gas and tritiated water, 875
The contribution made by surface science to understanding reactivity in heterogeneous catalysis, 2675
Modifications of platinum model catalysts by sulphur: effect on reactions of labelled hexanes, 2719
CO oxidation over small Pd particle model catalysts. A static secondary ion mass spectrometry study, 2749
Kinetic and mechanistic study of the methane coupling reaction, 3803
Heteropoly acid
Active form of 12-vanadomolybdophosphoric acids in n-butane selective oxidation, 2775
Hex-3-ene radical cation
Theoretical study of the hex-3-ene radical cation, 3287
Hexagonal system
Calculating the characteristic polynomial, eigenvectors and number of spanning trees of a hexagonal system, 1033
Hexane
Modifications of platinum model catalysts by sulphur: effect on reactions of labelled hexanes, 2719
Transformations of n-hexane over EUROPT-1: fragments and C_6 products on fresh and partially deactivated catalyst, 3159
High-ash Indian coal
Synthesis and characterisation of carbon molecular sieves. High-ash Indian coal, 3455
Higher-order limiting law
Higher-order limiting laws and the Pitzer methods for symmetrical mixed electrolytes, 3897
High-resolution electron energy loss spectroscopy
Donor–acceptor interactions between molecular coadsorbates on Ru(001), 2271
High-resolution electron spectroscopy
High-resolution electronic spectroscopy of some substituted *N*-phenylpyrrolidines and their solvated clusters in a supersonic jet: site selectivity and cluster structures, 1949
High-resolution infrared spectroscopy
High-resolution infrared spectroscopy of the $CO \cdot CO_2$ van der Waals molecule, 1943
High-resolution laser photofragment spectroscopy
High-resolution laser photofragment spectrum of $N_2^{2+}(^1\Pi_u - ^1\Sigma_g^+)$, 2005
Hindered phenols
Molecular mechanics study of hindered phenols used as antioxidants, 47
HO_2 radical
Arrhenius parameters for the addition of HO_2 radicals to (*E*)-but-2-ene over the range 400–520 °C, 2115
Homogeneous catalysis
Homogeneous and heterogeneous metal-catalysed hydrogen isotope exchange of nitrobenzene with tritium gas and tritiated water, 875
Hopf bifurcation
Development of oscillations in closed systems, 3365
Hückel method
A comparative study of the chemisorption of ethene on three metal surfaces: Ni(111), Pd(111) and Pt(111), 4083
Hydrated electron
Estimation of rate constants for near-diffusion-controlled reactions in water at high temperatures, 1539
Hydration
Indirect evidence for hydration forces in the deposition of polystyrene latex colloids on glass surfaces, 1623
Ionic hydration number in V_2O_5 intercalated xerogels $M_x(H_2O)_yV_2O_5$, 2623
Hydrazoic acid–tributyl phosphate complex
Stability constants of hydrazoic acid–tributyl phosphate complexes in hexadecane solution, 3561
Hydrocarbon
Solubilisation of hydrocarbons in surfactant monolayers, 3623
Interactions of surfactant monolayers across hydrocarbon liquids, 4049
Hydrogen
CIDEP and CIDNP studies of the hydrogen abstraction of 9,10-anthraquinone from xanthene, 253
The rotational excitation of NH_3 by *ortho*- and *para*-H_2, 1659
Kinetics of hydrogen production from illuminated CdS/Pt/Na_2SO_3 and ZnS/Pt/Na_2S dispersions, 3637
Hydrogenation
Role of solid-state structure in propene hydrogenation with nickel catalysts, 739
Surface structure and catalysis for CO hydrogenation of the supported Ru species derived from the $Ru_3(CO)_{12}$ inorganic oxides, 2657
Hydrogen bond
Influence of specific interaction effects on the proton-transfer equilibrium in intermolecular hydrogen bonds of carboxylic acids and phenols with amines, 301
Proton transfer in intramolecular hydrogen bonds with large proton polarizability in 1-piperidinecarboxylic acids. Temperature, solvent and concentration dependence, 627
Infrared spectra and protonation of 1,8-bis(dimethylamino)naphthalene in acetonitrile, 1777
AM1 study of tautomerism and intramolecular hydrogen bonding in thiomalondialdehyde and thioacetylacetone, 2813
Ab initio molecular orbital calculations of the infrared spectra of hydrogen-bonded complexes of water, ammonia and hydroxylamine. Part 5.—Effects of convergence criterion and electron correlation on geometry, wavenumber and intensity: the *trans*-hydroxylamine monomer revisited, 3067
Proton polarizability of $N^+H \cdots N \rightleftharpoons N \cdots H^+N$ hydrogen bonds and far-infrared continua of nitrogen-base systems. A Fourier-transform infrared spectroscopic study, 3557
Hydrogen chloride
Rotational spectrum of $(CH_3)_3P \cdots HCl$ and a comparison of properties within the series of axially symmetric dimers $R_3Y \cdots HCl$, where Y = N or P and R = H or CH_3, 1915
Hydrogen isotope effect
Hydrogen isotope effects in the absorption of water by perfluorosulphonate (Nafion-117) and polystyrene divinylbenzene sulphonate (Dowex 50W) ion-exchange resins, 409
Hydrogen isotope exchange
Homogeneous and heterogeneous metal-catalysed hydrogen isotope exchange of nitrobenzene with tritium gas and tritiated water, 875
Hydrogen molecular ion
Spectroscopy of the $H \cdots H^+$ and $D \cdots D^+$ charge/induced-dipole complexes, 1957
Hydrogenolysis
Hydrogenolysis of alkanes. Part 5.—Effect of metal dispersion in ruthenium/alumina catalysts on the hydrogenolysis of propane and of n-butane, 2297
Hydrogen peroxide
Thermal and photochemical production of hydrogen peroxide from dioxygen and tannic acid, gallic acid and other related compounds in aqueous solution, 2587
Hydrogen spillover
Gas-phase transport of hydrogen atoms in methanol synthesis over copper/zinc oxide catalysts?, 3151
Hydroperoxide
Study of peroxide-modified titanium dioxide (anatase), 385
Hydrophobic interaction
Hydrophobic interactions of alkanols. A calorimetric study in water at 298.15 K, 85
Hydrophobic interactions in the aqueous solutions of alkan-1,2-diols. Calorimetric and spectroscopic studies at 298.15 K, 3567
Hydrosilylation
Electron paramagnetic resonance study of spin-trapped free radicals in the hydrosilylation of septamethylvinyltrisiloxane using benzophenone as an initiator, 3221
Hydrothermal conversion
Direct hydrothermal conversion of cubic P zeolite to organozeolite SSZ-13, 3467
Hydroxylamine
Ab initio molecular orbital calculations of the infrared spectra of hydrogen-bonded complexes of water, ammonia and hydroxylamine. Part 5.—Effects of convergence criterion and electron correlation on geometry, wavenumber and intensity: the *trans*-hydroxylamine monomer revisited, 3067
Theoretical study of the inversion barriers of monochloramine and hydroxylamine, 3991
Hydroxyl radical scavenger
Effects of ionising radiation on deoxyribonucleic acid. Part VI.—Effects of hydroxyl radical scavengers on radiation damage to DNA, 3267
Hydroxyphenylazobenzoate
Solution thermodynamics of haptens containing 4-hydroxyphenylazobenzoate and substituted 4-hydroxyphenylazobenzoate anions in *N,N*-dimethylformamide, 2193
Hyperfine coupling
A new method for calculating hyperfine splittings of strongly perturbed states: application to the a $^3\Pi$ state of CH^+, 1969
Radical cation of $HP(O)(OMe)_2$: electron paramagnetic resonance evidence for competition between bonding to solvent, a 1,2-hydrogen shift, and a 1,4-hydrogen shift, 2173
Structure and reactivity of peroxyl and sulphoxyl radicals from measurement of oxygen-17 hyperfine couplings: relationships with Taft substituent parameters, 3279
Theoretical study of the hex-3-ene radical cation, 3287

Ideal solution
Pure component A + classically ideal solution (B + C + ···) = ?, 3641
Imaging
Spectral–spatial electron paramagnetic resonance imaging of electrochemically generated radicals, 3181
Imidazole
Kinetic and equilibrium studies of the complexations of polymer-bound imidazole ligands with a macrocyclic cobalt(III) complex, 3537
Imidazoline nitroxide radical
2 mm electron paramagnetic resonance studies of the new types of imidazoline nitroxide radicals, 3201
Inclusion
Structural aspects of the chlorocyclohexane/thiourea inclusion system, 1095
Ultrasonic and electrochemical studies of the interactions of the drug chlorocyclizine hydrochloride with α-cyclodextrin and surfactant micelles, 1511
Powder X-ray diffraction studies of a low-temperature phase transition in the n-hexadecane/urea inclusion compound, 3135
Indium
Thermodynamics of gallium(III) and indium(III) monoazide complexes in dimethyl sulphoxide solutions, 1467
Raman spectroscopic investigations of concentrated aqueous solutions of $InCl_3$ and of $InBr_3$, 3883
Inelastic scattering
Iterative solution in quantum scattering theory. The log derivative Kohn approach, 1641
Exact and approximate calculations for the effect of potential anisotropy on integral and differential cross-sections: Ar–N_2 rotationally inelastic scattering, 1649
Inert-gas cluster
Dynamics of cluster ion fragmentation, 2405
Infrared absorption spectroscopy
A theoretical study of the infrared absorption spectra of large water clusters, 2357
Infrared electronic spectra
Spectroscopy of the H ··· H^+ and D ··· D^+ charge/induced-dipole complexes, 1957
Infrared fluorescence
Vibration–vibration energy transfer from H_2(v = 1) and D_2(v = 1) to selected diatomic and polyatomic hydrides and deuterides, 3983
Infrared laser spectroscopy
Ab initio studies of acetylene tetramer and pentamer, 1931
Infrared photodissociation
Infrared photodissociation of mass-selected molecular clusters, 1923
Infrared spectroscopy
Infrared study of the adsorption of water and ammonia on calcium carbonate, 181
The adsorption of ethanal by some type A zeolites. A Fourier-transform infrared study, 205
Infrared study of the interaction of CO with alumina-supported rhodium, 389
Infrared study of hydrogen adsorbed on ZrO_2, 397
Infrared study of the adsorption of NO, NO_2 and CO on Rh/Al_2O_3 catalysts, 571
Infrared study of nitric oxide adsorption on a chromia/$AlPO_4$ ethene polymerisation catalyst, 577
Revisiting MgO–CO surface chemistry: an IR investigation, 703
Modification of zeolite Y using phosphorus pentachloride, 757
In situ infrared study of the surface oxidation of activated carbon in oxygen and carbon dioxide, 861
Effect of oxidation–reduction treatments on the infrared spectra of carbon monoxide chemisorbed on a Ru/TiO_2 catalyst, 979
Adsorption of polystyrene and poly(methyl methacrylate) onto a silica surface studied by the infrared technique. Comparison with theory, 1383
Infrared spectroscopic investigations of the adsorption of ethylene oxide–propylene oxide copolymers from CCl_4 on pyrogenic silica, 1389
Infrared spectra and protonation of 1,8-bis(dimethylamino)naphthalene in acetonitrile, 1777
Conformational equilibria in n-alkanols. Infrared spectral deconvolution of the unsymmetric hydroxyl band profile, 1781
In situ infrared study of the modification of the surface of activated carbon by ammonia, water and hydrogen, 1881
Adsorptive interactions of glucose and carbon dioxide with basic sites over alumina, 1885
Infrared laser-Raman and X-ray diffraction investigation of MoO_3/ZrO_2 and the oxidation of (*Z*)-but-2-ene, 2291
Infrared spectroscopy and dimer formation at the surface of medium-large argon clusters, 2361
Infrared spectroscopy of large CO_2 clusters, 2369
Investigation of the phase-transition behaviour in solid tetramethylene sulphoxide, 2617
Structure and behaviour of $Ru_3(CO)_{12}$ supported on inorganic oxide surfaces, studied by EXAFS, infrared spectroscopy and temperature-programmed decomposition, 2645
Infrared spectroscopic comparison of the chemisorbed species from ethane, propene, but-1-ene and *cis*- and *trans*-but-2-ene on Pt(111) and on a platinum/silica catalyst, 2757
Infrared spectra of cyclopropanol and ethenol, 2805
Infrared spectroscopic surface characterization of zirconium oxide. Part 3.—The CO/CO_2 and CO/H_2O interactions at the surface of a high-area monoclinic preparation, 3003
Solid-state incorporation of Mn^{2+} ions in H-ZSM-5 zeolite, 3033
Adsorption complexes of methanol on zeolite ZSM-5, 3039
Ab initio molecular orbital calculations of the infrared spectra of hydrogen-bonded complexes of water, ammonia and hydroxylamine. Part 5.—Effects of convergence criterion and electron correlation on geometry, wavenumber and intensity: the *trans*-hydroxylamine monomer revisited, 3067
Calorimetric and spectroscopic studies of LiSCN solutions in aprotic solvents, 3103
C—H exchange reaction of methoxide species on an Sn_2O_3 catalyst observed by *in situ* infrared spectroscopy, 3489
Infrared studies of ethene hydrogenation over ZrO_2. Part 2.—Ethane adsorption, 3665
Infrared study of the reaction of carbon monoxide and ammonia over supported rhodium catalysts, 3809
Acid sites in dehydroxylated Y zeolites: an X-ray photoelectron and infrared spectroscopic study using pyridine as a probe molecule, 3949
Intercalation
Insight into the intercalation problem of the Li/CuO cell by analytical electron spectroscopies, 3607
Interface
Kinetics of the Langmuirian adsorption of Cu^{II} ions at the calcite/water interface, 129
Volume-fraction profiles of adsorbed polymers, 1323
A study of block copolymer adsorption kinetics *via* internal reflection interferometry, 1341
Strong-stretching and Scheutjens–Fleer descriptions of grafted polymer brushes, 1349
Forces between mica surfaces bearing adsorbed homopolymers in good solvents. The effect of bridging and dangling tails, 1363
Investigation by optical evanescent waves of the structure of adsorbed polymer layers in good solvents, 1369
Infrared spectroscopic investigations of the adsorption of ethylene oxide–propylene oxide copolymers from CCl_4 on pyrogenic silica, 1389
Internal reflection interferometry
A study of block copolymer adsorption kinetics *via* internal reflection interferometry, 1341
Inversion barrier
Theoretical study of the inversion barriers of monochloramine and hydroxylamine, 3991
Iodine hydrolysis
Temperature dependence of the equilibrium constant for iodine hydrolysis at temperatures between 25 and 120 °C, 1443
Iodomethane
Preferred transition-state geometry in the reaction of fluorine atoms with iodomethane molecules, 2059
Ion binding
Relaxation kinetics of ion binding, 639
Ion binding in polyelectrolyte solutions and the Poisson–Boltzmann equation, 2607
Ion channel
Electrochemical study of ion transfer across the polypyrrole membrane between two electrolyte solutions, 2243
Ion–dipole
Double Stark effect in the theory of ion–dipole capture processes, 1
A mean field analysis of an ion–dipole mixture against a charged hard wall with specific adsorption. Part 2.—Non-linear results, 35
Ion exchange
Hydrogen isotope effects in the absorption of water by perfluorosulphonate (Nafion-117) and polystyrene divinylbenzene sulphonate (Dowex 50W) ion-exchange resins, 409
NH_4-exchange: a sensitive method for the characterization of structurally modified zeolites, 585
Theory of concentration polarization effects in electrodialysis on counter-ion selectivity of ion-exchange membranes with differing counter-ion distribution coefficients, 1857
Occurrence and removal of hydroxide precipitates on ion-exchanged faujasite-type zeolites: zinc molecular sieves, 1899
Synthetic carbonate apatites as inorganic cation exchangers. Exchange characteristics for toxic ions, 2303
Study of lanthanum ion-exchanged zeolite NaY by solid-state nuclear magnetic resonance spectroscopy, 3167
Ionic association
Influence of ionic association on the *B* coefficient of the Jones–Dole equation for KI and KCl in water–t-butyl alcohol mixtures at 26 °C, 2225
Ionic crystal
The entropy of a point defect in an ionic crystal, 1197
Ionic mobility
Conductivity and NMR study of ionic mobility in lithium oxide, 1239
Ionic solvation
Ion–solvent interactions of some ions in dipolar aprotic solvents at 25°C, 459
Ionic solvation in water–co-solvent mixtures. Part 21.—Free energies of transfer of single ions from water into water–2-ethoxyethanol mixtures, 1471
Ionic species
Bulk and surface thermodynamics of stoichiometric ionic crystals consisting of three ionic species, 631
Ionic structure
Tracer diffusion coefficients of I^-, I_3^-, Fe^{2+} and Fe^{3+} at low temperatures, 3573
Ion implantation
Optical effects of defect diffusion in $Bi_4Ge_3O_{12}$ and $Bi_{12}GeO_{20}$ produced by ion implantation, 1287
Ionization potential
Alkali-metal clusters as prototypes of metal clusters, 2525
Ion-scattering spectroscopy
Coadsorption of nitrogen with Cu, Ag and Au on W{100}: the role of metal adatoms in controlling surface reactivity, 2735
Ion-selective electrodes
The use of ion-selective electrodes to determine the effective degree of micelle dissociation in tetradecylpyridinium bromide solutions, 1535
Ion-selective field effect transistors
Thermodynamic analysis of pH-FET and ISFET response, 2249
Ion–solvent interactions
Ion–solvent interactions in mixtures of *N*-methyl-2-pyrrolidinone and *N*-methyl-2-thiopyrrolidinone, 823
Ion transfer
Electrochemical study of ion transfer across the polypyrrole membrane between two electrolyte solutions, 2243

Ion transport
Criteria governing ion and solvent transport rates in electroactive polymers. The existence of kinetic permselectivity, 437
Atomistic mechanisms of ionic transport in fast-ion conductors, 1167
Mean first passage times of ions between charged surfaces, 3585
Iron
Promotion effect of Fe on the selectivity of Pd zeolite-X in methanol synthesis, 419
Effects of temperature and wavelength on the primary process in the photo-oxidation of iron(II) ion, 615
Reaction characteristics of dental and synthetic apatites with Fe^{2+} and Fe^{3+} ions, 1071
Overgrowth of iron(III) phosphate on collagen, 2967
Resonance Raman investigation of pH-dependent equilibria of water-soluble iron porphyrins, 4017
Irreducible tensor analysis
Two-photon photoselection: an irreducible tensor analysis, 3051
Isentropic compressibility
Ultrasonic, dielectric and viscometric behaviour of binary systems of 1,4-dioxane with 1,2-dichloroethane, methylene chloride, trichloroethene, tetrachloroethene and cyclohexane, 3399
Isobaric heat capacity
Thermodynamic model for isobaric heat capacities associated with cold and warm thermal denaturation of proteins, 1437
Isobutene
Adsorption of isobutene on partially hydrophobized Aerosil, 539
Isobutyl alcohol
Influence of pore confinement on the catalytic dehydration of isobutyl alcohol on H-ZSM-5, 581
Isoflurane
Novel amperometric sensor for the detection of the anaesthetic gases isoflurane and nitrous oxide, 1077
Isomerization
Influence of hydrogen chloride addition on the catalytic isomerization activity of chlorinated alumina and chlorinated platinum–alumina solids. Superacid behaviour, 567
Isothermal compressibility
Ultrasonic absorption properties and Kirkwood–Buff integral functions for hydrogen peroxide–water and propanone–water mixtures at 298.2 K, 283
Isotope effect
Atomic transport of trivalent impurities in silicon: diffusion, isotope effects, activation volumes, 1293
Analysis of isotope effects by perturbation theory technique. $^{18}O/^{16}O$ isotope effects in alkyl ethers, 1411
Isotope effects of the collinear reactions F + HBr, F + DBr and F + MuBr, 1689
Analysis of isotope effects by the perturbation theory technique: $^{13}C/^{12}C$ isotope effects in alkyl ethers, 3871
j_z-conserving approximation
The non-reactive j_z-conserving approximation as a probe for the entrance-channel dynamics in reactive collisions: H + H_2, 1669
Jones–Dole equation
Influence of ionic association on the *B* coefficient of the Jones–Dole equation for KI and KCl in water–t-butyl alcohol mixtures at 26 °C, 2225
Kekulé structure
Why can so few benzenoids be completely drawn with Clar's resonant sextets? An analysis using 'branching graphs' and a 'coiled hexagon code', 447
Keto–enol tautomerism
Keto–enol tautomerism of dithiomalondialdehyde and dithioacetylacetone. A reinvestigation using version 2.1 of the AM1 method, 3713
Ketone
Combined deuterium nuclear magnetic resonance and mass-spectrometric studies of the exchange reactions of ketones over supported-metal catalysts, 747
Kinematically constrained reactions
Angular momentum disposal and product rotational alignment in kinematically constrained reactions, 17
Kinetic isotope effect
^{13}C and ^{14}C kinetic isotope effects in the reduction of CO over an Mg surface, 2283
Primary kinetic isotope effects on acid-catalysed reduction of *p*-benzoquinone derivatives by an acid-stable NADH analogue, 3531
Kinetics
Kinetics and energy transfer in the thermal decomposition of 2-methyloxetane and 3-methyloxetane, 21
Absolute rate constants for the gas-phase reactions of silylene with silane, disilane and the methylsilanes, 27
Spatial inhomogeneity effects in photochemical kinetics. Competition between first-order and second-order reactions of a photochemically generated intermediate, 61
Photocurrent kinetics of Group III metal–(phthalocyaninato)–halogen complexes in vacuum and oxidising gas atmospheres, 115
Micellar effects upon the reactions of complex ions in solution. Part 4.—Kinetics of aquation and base hydrolysis of some *cis*-(chloro)(amine) bis(ethylenediamine)cobalt(III) complexes in the presence of neutral and anionic surfactants in an aqueous medium, 507
Oxidation kinetics of chromium(III) chloride, 525
A new kinetic approach for multi-route systems: A generalisation of the rate-determining step approximation, 789
Kinetic study of the collisional behaviour of $Mg(3\,^3P_J)$ with alkanes at elevated temperatures following pulsed dye-laser excitation, 795
Surface electrochemistry of the anodic Cl_2 evolution reaction at Pt. Influence of co-deposition of surface oxide species on adsorption of the $Cl^{\cdot}$ intermediate, 923
Kinetics of the solvolysis of chloropenta-ammine-cobalt(III) ions in mixtures of water and glucose, 941
Kinetics of corrosion of ruthenium dioxide hydrate by bromate ions under acidic conditions, 955
Inhibitor effects on calcite growth at low supersaturations, 965
Kinetics of bridging flocculation. Role of relaxations in the polymer layer, 1355
Errors in rate constants due to subsequent reactions of monitored species, 1403
A study of the $(CH_3)_4Si + H \rightleftharpoons H_2 + (CH_3)_3SiCH_2$ system, 1407
One- and two-electron reduction of quinizarin and 5-methoxyquinizarin: A pulse radiolysis study, 1483
Effect of carboxylic acids on the dissolution of calcite in aqueous solution. Part 3.—Polymaleic acid, 1517
Steric and repeated-collision effects in diffusion-controlled reactions in solution: Kinetics of formation of some iodine donor–acceptor complexes of sulphur compounds, 1549
Kinetics and mechanism of lignite dehydration, 1573
Rate constants for the reactions of CH_3O and C_2H_5O with NO_2 over a range of temperature and total pressure, 1751
Rate constants for the reactions of CH_3O and C_2H_5O with NO over a range of temperature and total pressure, 1757
Formation of CH_3CHO in the combination of CH_3 with CHO, 1763
Kinetics of the solvolysis of chloropentacyanocobaltate(III) ions in water and in water–methanol mixtures, 1791
Haem peptide–protein interactions. Part 3.—The kinetics and mechanism of the interaction between human placental glutathione S-transferase π and the non-substrate ligand microperoxidase-8 (MP-8), 1797
Temperature dependence of reactions of the nitrate radical with alkanes, 2109
Arrhenius parameters for the addition of HO_2 radicals to (*E*)-but-2-ene over the range 400–520 °C, 2115
Kinetics of partly diffusion-controlled reactions. Part 23.—The case of ionic reactions, 2145
Kinetics for the surface-controlled dissolution of a powder dispersion with a log-normal distribution in particle size, 2163
Reaction of CH_3 radicals with methanol in the range $525 \leqslant T/K \leqslant 603$, 2553
Kinetics of the reactions of the SO_4 radical with SO_4^-, $S_2O_8^{2-}$, H_2O and Fe^{2+}, 2557
Kinetic electron paramagnetic resonance study of the reactions of t-butylperoxyl radicals in aqueous solution, 3247
Reactions of HO_2 with NO and NO_2 studied by mid-infrared laser magnetic resonance, 3355
Kinetics of redox dissolution of soft-centre particles, 3405
Mechanistic studies of the catalytic dehydration of isobutyl alcohol on NaH-ZSM-5, 3473
Kinetic and equilibrium studies of the complexations of polymer-bound imidazole ligands with a macrocyclic cobalt(III) complex, 3537
Mean first passage times of ions between charged surfaces, 3585
Kinetics of comproportionation of the bipyridilium salt *p*-cyanophenyl paraquat in propylene carbonate studied by rotating ring–disc electrodes, 3597
Kinetics of hydrogen production from illuminated CdS/Pt/Na_2SO_3 and ZnS/Pt/Na_2S dispersions, 3637
Kinetics and mechanism of formation of quantum-sized cadmium sulphide particles in water–aerosol-OT–oil microemulsions, 3757
Kinetic and mechanistic study of the methane coupling reaction, 3803
Vibration–vibration energy transfer from $H_2(v = 1)$ and $D_2(v = 1)$ to selected diatomic and polyatomic hydrides and deuterides, 3983
Kinetics of the reactions of CH_3O and CD_3O with NO, 4001
Fourier-transform infrared study of the oxidative thermolysis of tetramethyltin in the temperature range 533–613 K, 4059
Kinetic features and lattice-oxygen participation in propene oxidation over Bi–Mo oxide and some Mo oxide catalysts, 4077
Kinetic salt effect
Kinetic salt effects in intramolecular electron transfer, 937
Kirkwood–Buff theory
An inverse Kirkwood–Buff treatment of the thermodynamic properties of DMSO–water mixtures and cyanomethane–water binary liquid mixtures at 298.2 K, 277
Ultrasonic absorption properties and Kirkwood–Buff integral functions for hydrogen peroxide–water and propanone–water mixtures at 298.2 K, 283
Lamellar phase
Dilute lamellar and L_3 phases in the binary water–$C_{12}E_5$ system, 2253
Langevin dynamics
Langevin dynamics simulations of electrolyte solutions. Influence of friction and random forces, 2139
Langmuir–Blodgett film
Langmuir–Blodgett alignment of optically non-linear D-π-A materials, 1117
Langmuirian adsorption
Kinetics of the Langmuirian adsorption of Cu^{II} ions at the calcite/water interface, 129
Lanthanide
Solution thermodynamics of lanthanide(III) cations (La^{3+}, Pr^{3+} and Nd^{3+}) and cryptands in propylene carbonate and in acetonitrile, 89
Lasalocid
Interactions between metal cations and the ionophore lasalocid. Part 8.—Enthalpies and entropies of formation of 1 : 1 and 2 : 1 complexes of lasalocid anion and salicylate with some divalent transition-metal cations in methanol, 3395
Laser-induced fluorescence
A pulsed crossed supersonic molecular beam study of the reaction $C(^3P) + OCS(X^1\Sigma^+) \rightarrow CS(a^3\Pi_r, X^1\Sigma^+) + CO(X^1\Sigma^+)$, 887
Rate constants for the reactions of CH_3O and C_2H_5O with NO_2 over a range of temperature

and total pressure, 1751
Laser-induced fluorescence excitation spectrum and radiative lifetime of Cl_2^+, 2009
Photolysis of HOCl at 248 nm in a supersonic molecular beam: laser-induced fluorescence spectra of OH, 3831
Laser-induced fluorescence from the predissociating formyl radical. Part 2.—Analysis of dispersed emission from the $\tilde{A}$–$\tilde{X}$ transition, 3837
Kinetics of the reactions of CH_3O and CD_3O with NO, 4001
Laser magnetic resonance
Structural properties of the SeH radical, determined by laser magnetic resonance at mid- and far-infrared wavelengths, 1995
Reactions of HO_2 with NO and NO_2 studied by mid-infrared laser magnetic resonance, 3355
Laser photolysis
Rate constants for the reactions of CH_3O and C_2H_5O with NO over a range of temperature and total pressure, 1757
Latex
Indirect evidence for hydration forces in the deposition of polystyrene latex colloids on glass surfaces, 1623
Flow of ordered latex suspensions: yielding and catastrophic shear thinning, 2629
Lattice energy
Structural and energetic aspects of defects in high-T_c oxides from atomistic lattice simulations, 1227
Lattice-oxygen participation
Kinetic features and lattice-oxygen participation in propene oxidation over Bi–Mo oxide and some Mo oxide catalysts, 4077
Lattice simulation
Structural and energetic aspects of defects in high-T_c oxides from atomistic lattice simulations, 1227
Lead(II) complex
Cationic lead(II) hydroxide complexes in molten alkali-metal nitrate, 351
Lead niobate
Photocatalytic activities of potassium-doped lead niobates and the effect of poling, 2277
Leucodye
Electrochemical study of the reaction between leucodye and Fe^{III} in dye-based photogalvanic systems, 105
Light scattering
Light-scattering studies of molecular association in mesogenic systems, 1113
Influence of polydispersity on dynamic light scattering measurements in concentrated suspensions, 1149
Association and surface properties of block-copoly(oxyethylene/oxypropylene/oxyethylene) L64, 1569
Lignite
Kinetics and mechanism of lignite dehydration, 1573
Lignosulphonate
Determination of diffusion coefficients and effective charge numbers of lignosulphonate. Influence of relative permittivity of the solvent, 3097
Li/Li$^+$ couple
Application of microelectrodes to the study of the Li/Li$^+$ couple in dimethyl sulphoxide, 1851
Limestone
Dissolution kinetics of Carrera marble, Portland stone and several limestones in acid waters, 849
Linear elastic behaviour
Concentration dependence of the linear elastic behaviour of model microgel dispersions, 3413
Linewidth alternation
Re-examination of linewidth alternation in the electron paramagnetic resonance spectrum of the 1,4-dinitrodurene radical anion, 3253
Liquid crystal
Light-scattering studies of molecular association in mesogenic systems, 1113
LiSCN solutions
Calorimetric and spectroscopic studies of LiSCN solutions in aprotic solvents, 3103
Lithium
A kinetic and microscopic investigation of the thermal dehydration of lithium sulphate monohydrate, 531
Defect energies for magnesium oxide and lithium oxide, 1233
Conductivity and NMR study of ionic mobility in lithium oxide, 1239
Longitudinal acoustic relaxation
Longitudinal acoustic relaxation of highly viscous liquids around room temperature, 917
Low-energy electron diffraction
Coadsorption of nitrogen with Cu, Ag and Au on W{100}: the role of metal adatoms in controlling surface reactivity, 2735
Low-field microwave absorption
Low-field microwave absorption in mechanical mixes of superconducting $YBa_2Cu_3O_{7-x}$ with Al_2O_3 and $BaPbO_3$, 3829
Low-temperature plasma calcination
Template removal from molecular sieves by low-temperature plasma calcination, 3967
Low-temperature solid matrix
Electron paramagnetic resonance study of imine radical cations in low-temperature solid matrices, 3303
Luminescence
Dual luminiscence of dimethylaminobenzonitrile in γ-cyclodextrin. Environmental effects on twisted intramolecular charge-transfer phenomenon, 53
Deactivation mechanism of excited uranium(VI) complexes in aqueous solutions, 55
A photophysical study of some purpurins, 3081
True luminescence spectra and luminescence quantum yields of molecules adsorbed on light-scattering media. Part 1.—Theory, 3707
Macrocycle
Kinetic and equilibrium studies of the complexations of polymer-bound imidazole ligands with a macrocyclic cobalt(III) complex, 3537
Macromolecule
Chromatographic behaviour of reversibly associating macromolecules. Part 1.—Theoretical model, 1103
Madelung potential
Calculations on electrostatic properties of HY zeolite, 3461
Magic-angle spinning nuclear magnetic resonance spectroscopy
Dealumination of Zeolites with silicon tetrachloride vapour. Part 6.—Zeolites Li, NaX and Li, NaY, 199
Modification of zeolite Y using phosphorus pentachloride, 757
Synthesis of ZSM-20. Comparison of properties with zeolite Y, 1001
Synthesis and properties of the silicoaluminophosphate molecular sieve SAPO-31, 2307
Adsorption complexes of methanol on zeolite ZSM-5, 3039
Fourier-transform infrared, scanning electron microscopy and magic-angle-spinning nuclear magnetic resonance studies of silicalite synthesized in non-alkaline media, 3679
Interaction of SAPO-37 molecular sieves with basic molecules: enhancement of stability, 3823
Limitations of resolution in the ^1H magic-angle-spinning nuclear magnetic resonance spectroscopy of zeolites, 3957
Magic number
Magic numbers in mass spectra of large van der Waals clusters, 2411
Magnesia
Temperature-programmed reduction study of NiO–MgO interactions in magnesia-supported Ni catalysts and NiO–MgO physical mixture, 2663
Magnesium
Revisiting MgO–CO surface chemistry: an IR investigation, 703
Reaction of methane with nitrous oxide over magnesium oxide at low temperatures, 1139
Defect energies for magnesium oxide and lithium oxide, 1233
^{13}C and ^{14}C kinetic isotope effects in the reduction of CO over an Mg surface, 2283
Adsorption of methane on magnesium oxide surfaces under ultraviolet irradiation, 4071
Magnetic resonance
Magnetic resonance measurements of solubilizate distribution coefficients and surface probabilities in some micelles, 3313
Magnetite
Carbon deposition on nickel ferrites and nickel–magnetite surfaces, 867
Maleate dianion
Reduction of maleate dianion at a mercury electrode in aqueous solution. A CEEC or CECE mechanism?, 657
Manganese oxide
Dissolution kinetics of manganese oxides. Effects of preparation conditions, pH and oxidation/reduction from solution, 947
Oxidative coupling of methane over manganese oxide catalysts, 1607
Marble
Dissolution kinetics of Carrera marble, Portland stone and several limestones in acid waters, 849
Mass spectrometry
Increase in yields of secondary ions by oxidation of zirconium at high temperatures and low oxygen pressures, 157
Combined deuterium nuclear magnetic resonance and mass-spectrometric studies of the exchange reactions of ketones over supported-metal catalysts, 747
Metastable decay of oxygen cluster cations and anions, 2395
Magic numbers in mass spectra of large van der Waals clusters, 2411
Solid-state incorporation of Mn^{2+} ions in H-ZSM-5 zeolite, 3033
Mass transport
Nuclear magnetic resonance methods of studying mass transport in solids, 1157
Atomic mechanisms of mass transport in ceramic nuclear fuel materials, 1243
Temperature polarization in non-isothermal mass transport through membranes, 2891
Mathematics
Calculating the characteristic polynomial, eigenvectors and number of spanning trees of a hexagonal system, 1033
Matrix
Matrix effects on the photodissociation of alkane radical cations. Part 1.—Nature of the photodissociation of heptane radical cations in perfluorohexane and 1,1,2-trichlorotrifluoroethane matrices at cryogenic temperatures, 3299
McClelland bound
McClelland-type lower bound for total π-electron energy, 3373
Mean-field analysis
A mean field analysis of an ion–dipole mixture against a charged hard wall with specific adsorption. Part 2.—Non-linear results, 35
Mean first passage time
Mean first passage times of ions between charged surfaces, 3585
Melting
Introductory Lecture: Clusters, melting, freezing and phase transitions, 2343
Correlated walk model of the melting transition in small clusters, 2351
Membrane
Electromotive force studies of cellulose acetate membranes. Binding of divalent cations and membrane potentials of KCl–KF mixtures, 341
Porous crystal membranes, 1123
Electrochemical study of ion transfer across the polypyrrole membrane between two electrolyte solutions, 2243
Temperature polarization in non-isothermal mass transport through membranes, 2891
Mercury
Reduction of maleate dianion at a mercury electrode in aqueous solution. A CEEC or CECE mechanism?, 657
Electronic spectra and geometries of HgX_3^- in water and an assessment of various computing procedures for revealing hidden spectra, 1425
Experimental study of the transition from van der Waals, over covalent to metallic bonding in mercury clusters, 2473
Adsorption of acetamide at the mercury/aqueous solution interface, 4037
Mesoxalic acid
Electrocatalytic oxidation of mesoxalic acid on a polycrystalline platinum electrode modified by foreign metals, 1845

Metachromasy
Metachromasy in clay minerals. Spectroscopic study of the adsorption of crystal violet by laponite, 1593
Metal cluster
Photodissociation of metal cluster ions. Dissociation energies and optical spectroscopy, 2537
Metal complex
Semiconductivity and photoconductivity studies of metal complexes of 5,14-dihydrodibenzo[*b*,*i*][1,4,8,11]tetra- azacyclotetradecine single crystals, 109
Metal film
Interaction of methyl-, ethyl- and n-propyl-amines with metal films of iron, nickel, palladium and aluminium, 995
Metal-oxide cluster
Photoionization of Na, Cs, Ca and Ba oxide clusters, 2489
Metal-oxide diatomic formation
Computational studies of the formation of metal-oxide diatomics and clusters, 233
Metal surface
Role of oxygen transients in the chemistry of dioxygen at atomically clean metal surfaces: the Zn(001)–dioxygen–ammonia system, 2701
Metastable decay
Metastable decay of oxygen cluster cations and anions, 2395
Metathesis
Raman spectroscopic studies of the effects of tin promotion on a rhenium/alumina dismutation catalyst, 1603
Methane
Reaction of methane with nitrous oxide over magnesium oxide at low temperatures, 1139
Oxidative coupling of methane over manganese oxide catalysts, 1607
Determination by neutron spectroscopy of the external frequencies of a CH_4 molecule adsorbed in an NaA zeolite cavity, 1905
Physicochemical properties of copper oxide loaded alumina in methane combustion, 3027
Reduction of supported and unsupported palladium oxide catalysts using methane. Characterization of active oxides, 3671
Adsorption of methane on magnesium oxide surfaces under ultraviolet irradiation, 4071
Methane–ammonia–water
Kinetic and electron paramagnetic resonance studies of photochemical reactions of gas mixtures of methane, ammonia and water, 2565
Methane coupling reaction
Kinetic and mechanistic study of the methane coupling reaction, 3803
Methanol
Promotion effect of Fe on the selectivity of Pd zeolite-X in methanol synthesis, 419
The role of copper and zinc oxide in methanol synthesis catalysts, 2683
Gas-phase transport of hydrogen atoms in methanol synthesis over copper/zinc oxide catalysts?, 3151
3-Methyl-2-butenal
Competitive muonium addition to 3-methyl-2-butenal, 220
Methylene blue
Mechanisms of methylene blue electrode processes studied by *in situ* electron paramagnetic resonance and ultraviolet–visible spectroelectrochemistry, 3125
2-Methylfuran
Conversion of 2-methylfuran to 2-methylthiophene over molecular sieves. Part 1.—Alkaline Y-zeolites, 193
Conversion of 2-methylfuran to 2-methylthiophene over alkaline X- and Y-zeolites, 2795
Methyloxetane
Kinetics and energy transfer in the thermal decomposition of 2-methyloxetane and 3-methyloxetane, 21
1-Methylsilacyclohexyl radical
Electron paramagnetic resonance study of silacyclohexyl and 1-methylsilacyclohexyl radicals, 3229
4-Methylstyrene
Methyl and vinyl torsional potential functions in 4-methylstyrene from supersonic jet fluorescence spectroscopy, 217
2-Methylthiophene
Conversion of 2-methylfuran to 2-methylthiophene over molecular sieves. Part 1.—Alkaline Y-zeolites, 193
Conversion of 2-methylfuran to 2-methylthiophene over alkaline X- and Y-zeolites, 2795
Methyl viologen
Kinetic study of the reduction of water to hydrogen by reduced methyl viologen mediated by platinised alumina, 1417
Reduction of dinitrogen to ammonia in aqueous solution mediated by colloidal metals, 3927
Mica
Forces between mica surfaces bearing adsorbed homopolymers in good solvents. The effect of bridging and dangling tails, 1363
Micelle
Micellar effects upon the reactions of complex ions in solution. Part 4.—Kinetics of aquation and base hydrolysis of some *cis*-(chloro)(amine) bis(ethylenediamine)cobalt(III) complexes in the presence of neutral and anionic surfactants in an aqueous medium, 507
Chromatographic behaviour of reversibly associating macromolecules. Part 1.—Theoretical model, 1103
The use of ion-selective electrodes to determine the effective degree of micelle dissociation in tetradecylpyridinium bromide solutions, 1535
Interpretation of frequency-dependent nuclear magnetic resonance relaxation data from micelles formed in the 6-(dimethyleicosylammonio)hexanoate–water system, 1555
Kinetics of fluorescence quenching of *n*(9-anthroyloxy) stearic acids by tertiary amines in non-ionic micelles of triton X-100, 2155
Study of the absorption spectra of pyrene complexed to paraquat in pentanol–sodium dodecylsulphate micelles, 2955
Magnetic resonance measurements of solubilizate distribution coefficients and surface probabilities in some micelles, 3313
Photochromism of a surface-active spirobenzopyran moiety in dioxane–water mixtures and self-assembled surfactant aggregates, 3613
Fluorescence quenching of pyrene by *N*-hexadecyl pyridinium chloride in mixed anionic micelles, 4043
Microcrystal
Formation of rod-like zinc oxide microcrystals in homogeneous solutions, 959
Microcrystallite
Photochemical properties of PbS microcrystallites prepared in Nafion, 815
Microemulsion
Influence of pressure and temperature on microemulsion stability, 511
Scattering studies of microemulsions in low-density alkanes, 2883
Kinetics and mechanism of formation of quantum-sized cadmium sulphide particles in water–aerosol-OT–oil microemulsions, 3757
Microgel dispersion
Concentration dependence of the linear elastic behaviour of model microgel dispersions, 3413
Microperoxidase
Haem peptide–protein interactions. Part 3.—The kinetics and mechanism of the interaction between human placental glutathione S-transferase π and the non-substrate ligand microperoxidase-8 (MP-8), 1797
Haem peptide–protein interactions. Part 4.—The microperoxidase-8-mediated inhibition of the human placental glutathione S-transferase π catalysed conjugation of glutathione and 1-chloro-2,4-dinitrobenzene, 1803
Micropore
Multi-stage micropore filling mechanism of nitrogen on microporous and micrographitic carbons, 371
Microstructure
Effect of phosphate ions on the surface chemistry and microstructure of amorphous alumina, 3653
Microwave spectroscopy
Ring inversion in tetrahydrothiophen-3-one. A microwave study, 5
Conformation and ring inversion in γ-butyrolactone. Part 1.—Microwave spectrum, 453
Dicyanomethane: microwave spectrum, quadrupole coupling and structure, 1981
Non-reactive interaction of oxirane and hydrogen bromide: isolation of an oxirane–hydrogen bromide dimer in a supersonic jet and its characterisation by microwave spectroscopy, 3975
Mid-infrared laser magnetic resonance
Reactions of HO_2 with NO and NO_2 studied by mid-infrared laser magnetic resonance, 3355
Mineral water
Surface behaviour of uranium dioxide after immersion in mineral water studied by X-Ray photoelectron spectroscopy, 2641
Minimal surface
Bonnet transformation of infinite periodic minimal surfaces with hexagonal symmetry, 769
Mirror inversion
Mirror inversion of the low-symmetry ground-state structures of the methylcyclohexane and 1,1-dimethylcyclohexane radical cations. An electron paramagnetic resonance study, 3377
Mixed dimer
Formation of mixed dimers in solutions of basic dyes, 3551
Mixture
Ultrasonic, dielectric and viscometric behaviour of binary systems of 1,4-dioxane with 1,2-dichloroethane, methylene chloride, trichloroethene, tetrachloroethene and cyclohexane, 3399
Modification
In situ infrared study of the modification of the surface of activated carbon by ammonia, water and hydrogen, 1881
Modified electrodes
Mechanisms of methylene blue electrode processes studied by *in situ* electron paramagnetic resonance and ultraviolet–visible spectroelectrochemistry, 3125
Molecular association
Light-scattering studies of molecular association in mesogenic systems, 1113
Molecular beam
Translational energy dependence of reaction dynamics in kinematically constrained systems. $Xe(^3P_2)$ + HCl, HBr, HI and CH_3I, 11
A pulsed crossed supersonic molecular beam study of the reaction $C(^3P) + OCS(X^1\Sigma^+) \rightarrow CS(a^3\Pi_r, X^1\Sigma^+) + CO(X^1\Sigma^+)$, 887
A crossed molecular beam chemiluminescence study of the reactions F and Cl + $(NO)_2$, 1619
Spectroscopic and photochemical perturbations of weak interactions on electronic surfaces of methyl iodide, 2043
Collision dynamics of Cs + $ICH_3 \rightarrow CsI + CH_3$: backward *vs.* sideways scattering as a function of collision energy, 2063
Molecular-beam studies of methanol partial oxidation on Cu(110), 2693
Photolysis of HOCl at 248 nm in a supersonic molecular beam: laser-induced fluorescence spectra of OH, 3831
Molecular conductor
Crystal and electronic structures of new molecular conductors tetramethylammonium and tetramethylarsonium complexes of $Pd(dmit)_2$, 361
Molecular dynamics
Translational energy dependence of reaction dynamics in kinematically constrained systems. $Xe(^3P_2)$ + HCl, HBr, HI and CH_3I, 11
Angular momentum disposal and product rotational alignment in kinematically constrained reactions, 17
The molecular dynamics of nucleosides and nucleotides, 265
Conformation and ring inversion in γ-butyrolactone. Part 1.—Microwave spectrum, 453
Conformation and ring inversion in γ-butyrolactone. Part 2.—*Ab initio* and flexible model computations, 459
Molecular reorientation in acetonitrile. A

comparison of diffusion coefficients from Raman bandshapes and nuclear magnetic resonance relaxation times, 593
Correlation functions in non-Newtonian couette flow. A group theory and molecular dynamics approach, 1041
Car–Parrinello methods, 1221
New theoretical methods for molecular collisions: the complex angular-momentum approach, 1627
Representation in hyperspherical and related coordinates of the potential-energy surface for triatomic reactions, 1681
Correlated walk model of the melting transition in small clusters, 2351
A theoretical study of the infrared absorption spectra of large water clusters, 2357
Molecular graphics
The synthesis of SAPO-34 and CoSAPO-34 from a triethylamine–hydrofluoric acid–water system, 425
Molecular mechanics
Double Stark effect in the theory of ion–dipole capture processes, 1
Molecular mechanics study of hindered phenols used as antioxidants, 47
High-resolution electronic spectroscopy of some substituted *N*-phenylpyrrolidines and their solvated clusters in a supersonic jet: site selectivity and cluster structures, 1949
Molecular modulation spectrometry
Reaction of CH_3 radicals with methanol in the range $525 \leqslant T/K \leqslant 603$, 2553
Molecular orbital
A theoretical and topological study on the electroreduction of chlorobenzene derivatives, 329
Theoretical study of chemisorption of acetylene on the Cu(100) surface, 553
Model calculations of chemical interactions. Part 1.—Intramolecular interactions and rotational barriers, 777
Model calculations of chemical interactions. Part 2.—Intramolecular interactions and double-bond pyramidalization in polycyclic alkenes, 783
Theoretical study of the dependence of the valence electronic levels on the tacticity and conformation of acrylonitrile model oligomers, 1025
ENDOR studies of π-electron delocalization in covalently linked porphyrin dimers. Model systems for the primary donor in photosynthesis?, 1087
Electronically excited states of the CH_3I^{2+} ion, 2801
Vacuum ultraviolet photoelectron spectroscopic study of the NH_2O and HNO molecules, 3843
A comparative study of the chemisorption of ethene on three metal surfaces: Ni(111), Pd(111) and Pt(111), 4083
Molecular sieve
Conversion of 2-methylfuran to 2-methylthiophene over molecular sieves. Part 1.—Alkaline Y-zeolites, 193
Smectite molecular sieves. Part 3.—Theoretical considerations of sorption kinetics, 545
Synthesis and properties of the silicoaluminophosphate molecular sieve SAPO-31, 2307
Interaction of SAPO-37 molecular sieves with basic molecules: enhancement of stability, 3823
Template removal from molecular sieves by low-temperature plasma calcination, 3967
Molecular structure
Molecular structure and smectic properties: the substituent effect on the smectic A phase in biphenyl ester systems, 3429
Molten salt
Effect of pressure on the electrical conductivity of the molten dichlorides, bromides and iodides of cadmium, tin and lead, 123
Cationic lead(II) hydroxide complexes in molten alkali-metal nitrate, 351
Molybdenum
Computer modelling of a molybdenum disulphide catalyst, 697
Extended X-ray absorption fine structure and ^{129}Xe nuclear magnetic resonance evidence for highly dispersed molybdenum clusters in zeolite Y, 1015
Monoazide complex
Thermodynamics of gallium(III) and indium(III) monoazide complexes in dimethyl sulphoxide solutions, 1467
Monochloramine
Theoretical study of the inversion barriers of monochloramine and hydroxylamine, 3991
Monolayer
Mixing of alkanes with surfactant monolayers at the air–water surface, 211
Monte Carlo
The ground-state energies of three-body Coulomb systems calculated by the short-time Green function Monte Carlo method, 43
How wrong is the Debye–Hückel approximation for dilute primitive model electrolytes with moderate Bjerrum parameter?, 1815
Mo oxide catalyst
Kinetic features and lattice-oxygen participation in propene oxidation over Bi–Mo oxide and some Mo oxide catalysts, 4077
Mordenite
NH_4-exchange: a sensitive method for the characterization of structurally modified zeolites, 585
Morphology
Morphological influence of functionalized and non-functionalized α, ω-dicarboxylates on calcite crystallization, 1873
Mössbauer spectroscopy
Titania-supported iron–ruthenium and iron–indium catalysts. An *in situ* iron-57 Mössbauer spectroscopic study of the effects of pretreatment in hydrogen, 165
Møller–Plesset perturbation theory
Theoretical study of the inversion barriers of monochloramine and hydroxylamine, 3991
Multiphoton ionization
Multiphoton ionization processes in HCl studied by photoelectron spectroscopy, 2035
Photophysics of clusters. Intracluster reactions and dynamics of dissociation processes, 2417
Non-resonant and resonant multiphoton ionization of $(NO)_n$ and Ar_nNO clusters with picosecond laser pulses, 2441
Muonium
Competitive muonium addition to 3-methyl-2-butenal, 220
Nafion
Photochemical properties of PbS microcrystallites prepared in Nafion, 815
Naphthoquinone
Photodynamics of the S_1 state of some hydroxy- and amino-substituted naphthoquinones and anthraquinones, 3861
Near-diffusion-controlled reaction
Estimation of rate constants for near-diffusion-controlled reactions in water at high temperatures, 1539
Neutron diffraction
High–low displacive transition in the all-silica form of the $AlPO_4$-5 topology, 2341
Swelling and dispersion of smectite clay colloids: determination of structure by neutron diffraction and small-angle neutron scattering, 3919
Neutron spectroscopy
Determination by neutron spectroscopy of the external frequencies of a CH_4 molecule adsorbed in an NaA zeolite cavity, 1905
Nickel
Role of solid-state structure in propene hydrogenation with nickel catalysts, 739
Oxidation and crystallization behaviour of amorphous $Ni_{64}Zr_{36}$ alloy, 843
Carbon deposition on nickel ferrites and nickel–magnetite surfaces, 867
Fourier-transform infrared studies of the corrosion of nickel in aqueous cyanide media, 1083
Application of microelectrodes to the study of the Li/Li^+ couple in dimethyl sulphoxide, 1851
Nitrate radical
Temperature dependence of reactions of the nitrate radical with alkanes, 2109
Nitric oxide
Coadsorption and interaction of nitric oxide and carbon monoxide on Rh supported on highly dealuminated Y zeolite. Formation of mixed Rh carbonyl–nitrosyls on the surface, 2329
Non-resonant and resonant multiphoton ionization of $(NO)_n$ and Ar_nNO clusters with picosecond laser pulses, 2441
Nitrobenzene
Radical anions of nitrobenzene on MgO and Al_2O_3, as investigated by electron spin resonance and electron nuclear double resonance spectroscopies, 403
Homogeneous and heterogeneous metal-catalysed hydrogen isotope exchange of nitrobenzene with tritium gas and tritiated water, 875
***p*-Nitrobenzyl chloride**
Simultaneous electrochemical electron paramagnetic resonance investigation of the reduction of *p*-nitrobenzyl chloride, 3233
Nitrogen
Reduction of dinitrogen to ammonia in aqueous solution mediated by colloidal metals, 3927
Nitrogen–argon cluster
Metastable, collision-induced and laser-induced decomposition of $Ar_mN_{2n}^+$ ($m = 0, 1$) cluster ions in the gas phase, 2427
Nitrogen oxide
Kinetics of N_2O decomposition on Fe^{3+} supported on pure and Li-modified Al_2O_3, 185
Nitronylnitroxides
ENDOR study of nitronylnitroxides in frozen solution, 3211
Nitrophenol
Acid–base behaviour of 4-nitrophenol and 4-nitrophenyl-2-sulphonate in water-in-oil microemulsions stabilized by aerosol-OT, 833
Single-crystal ENDOR study of γ-irradiated *p*-nitrophenol, 3197
Nitrous oxide
Novel amperometric sensor for the detection of the anaesthetic gases isoflurane and nitrous oxide, 1077
Reaction of methane with nitrous oxide over magnesium oxide at low temperatures, 1139
Non-electrolyte solution
Thermodynamic properties of ternary non-electrolyte solutions. Part 3.—Excess molar volumes of 2-propanone–tribromomethane–alkane mixtures, 2853
Nitroxide radicals formed by addition of phosphorus-centred radicals to aliphatic oximes. An electron paramagnetic resonance study, 3207
Non-electrolyte solution
Temperature of maximum density behaviour of non-electrolytes in water, 911
Non-linear optics
Langmuir–Blodgett alignment of optically non-linear D-π-A materials, 1117
Non-Newtonian
Correlation functions in non-Newtonian couette flow. A group theory and molecular dynamics approach, 1041
Rheology of colloidal suspensions. The isokinetic shear-flow hard-sphere model, 2121
***N*-Phenylpyrrolidine**
High-resolution electronic spectroscopy of some substituted *N*-phenylpyrrolidines and their solvated clusters in a supersonic jet: site selectivity and cluster structures, 1949
Nuclear fuel
Atomic mechanisms of mass transport in ceramic nuclear fuel materials, 1243
Nuclear hyperfine structure
Structural properties of the SeH radical, determined by laser magnetic resonance at mid- and far-infrared wavelengths, 1995
Nuclear magnetic resonance relaxation
Dielectric, ultrasonic and carbon-13 nuclear magnetic resonance relaxation measurements of t-butyl alcohol–water mixtures, 1493
Interpretation of frequency-dependent nuclear magnetic resonance relaxation data from micelles formed in the 6-(dimethyleicosylammonio)hexanoate–water system, 1555
Nuclear magnetic resonance spectroscopy
Preliminary observations on high-resolution nuclear magnetic resonance for liquids subjected to ultrasound, 215
^1H nuclear magnetic resonance studies of

complexes formed by adsorption of ammonia on nickel-Y type zeolite, 413
Nuclear magnetic resonance relaxation studies of proton exchange in methanol–water mixtures, 481
Molecular reorientation in acetonitrile. A comparison of diffusion coefficients from Raman bandshapes and nuclear magnetic resonance relaxation times, 593
Combined deuterium nuclear magnetic resonance and mass-spectrometric studies of the exchange reactions of ketones over supported-metal catalysts, 747
Viscoelastic and nuclear magnetic resonance studies on molecular mobility of carboxymethylcellulose–calcium complex in concentrated aqueous systems, 829
Comparison of nuclear magnetic resonance tracer exchange and molecular uptake of benzene on pentasils, 881
Synthesis of ZSM-20. Comparison of properties with zeolite Y, 1001
Extended X-ray absorption fine structure and ^{129}Xe nuclear magnetic resonance evidence for highly dispersed molybdenum clusters in zeolite Y, 1015
Nuclear magnetic resonance methods of studying mass transport in solids, 1157
Conductivity and NMR study of ionic mobility in lithium oxide, 1239
Nuclear magnetic resonance and differential thermal analysis studies of hydrogen molybdenum bronzes, H_xMoO_3, 1583
Nuclear magnetic resonance study of the dealumination of an amorphous silica–alumina catalyst, 1599
Direct nuclear magnetic resonance observations of excited uranyl ions, 1621
Solvation of copper(I) perchlorate in mixed solvent systems containing acetonitrile. A ^{63}Cu, ^{65}Cu and ^{31}P nuclear magnetic resonance study, 2847
Study of lanthanum ion-exchanged zeolite NaY by solid-state nuclear magnetic resonance spectroscopy, 3167
Hydrogen adsorption on silica-supported platinum studied by proton nuclear magnetic resonance spectroscopy, 3491
Hydrophobic interactions in the aqueous solutions of alkan-1,2-diols. Calorimetric and spectroscopic studies at 298.15 K, 3567
Reactions of cyclopropane and deuterium over supported metal catalysts, 3815
Diffusion of C_4 hydrocarbons in silicalite-1, 3943

^{14}N nuclear quadrupole coupling surface
Theoretical ^{14}N nuclear quadrupole coupling surface for ammonia, 1991

Nucleation
Kinetics and mechanism of formation of quantum-sized cadmium sulphide particles in water–aerosol-OT–oil microemulsions, 3757

Nucleic acid
Partial molar heat capacities and volumes of some nucleic acid bases, nucleosides and nucleotides in aqueous urea solutions at 298.15 K, 905

Nucleoside
The molecular dynamics of nucleosides and nucleotides, 265

Nucleotide
The molecular dynamics of nucleosides and nucleotides, 265

O_2 quenching
Effect of oxygen-enhanced intersystem crossing on the observed efficiency of formation of singlet oxygen, 3075

One-electron reduction potential
Determination of the one-electron reduction potential of electron-affinic compounds intercalated into DNA, 3971

Optical evanescent wave
Investigation by optical evanescent waves of the structure of adsorbed polymer layers in good solvents, 1369

Optical spectroscopy
Photodissociation of metal cluster ions. Dissociation energies and optical spectroscopy, 2537

Optical waveguide
Optical effects of defect diffusion in $Bi_4Ge_3O_{12}$ and $Bi_{12}GeO_{20}$ produced by ion implantation, 1287

Organosilicon
A study of the $(CH_3)_4Si + H \rightleftharpoons H_2 + (CH_3)_3SiCH_2$ system, 1407

Organozeolite SSZ-13
Direct hydrothermal conversion of cubic P zeolite to organozeolite SSZ-13, 3467

Oscillating tube densitometer
Density measurement by oscillating tube. Effects of viscosity, temperature, calibration and signal processing, 145

Oscillatory reaction
Development of oscillations in closed systems, 3365
Detailed bifurcation structure and new mixed-mode oscillations of the Belousov–Zhabotinskii reaction in a stirred flow reactor, 3695
Period doubling and chaos during the oscillatory ignition of the $CO + O_2$ reaction, 3701

Osmosis
Effects of polydispersity on osmotic properties of colloidal suspensions, 3419
Simple determination of the osmotic pressure of sterically stabilised colloids, 3693

Ovalbumin
Rheological and small-angle X-ray scattering investigations on the shape and ordered arrangement of native ovalbumin molecules in aqueous colloids, 2877

Overgrowth
Overgrowth of iron(III) phosphate on collagen, 2967

Oxidation
Oxidation kinetics of chromium(III) chloride, 525
In situ infrared study of the surface oxidation of activated carbon in oxygen and carbon dioxide, 861
Infrared laser-Raman and X-ray diffraction investigation of MoO_3/ZrO_2 and the oxidation of (Z)-but-2-ene, 2291
Active form of 12-vanadomolybdophosphoric acids in n-butane selective oxidation, 2775
The photo-CE mechanism: the oxidation of tris-(*p*-tolyl)amine in acetonitrile at an illuminated platinum electrode, 3603
Surface structures of molybdenum oxide highly dispersed on ZrO_2 and oxidation of propan-2-ol, 3659

Oxide
Demixing, decomposition and degradation of oxides in chemical potential gradients, 1273
Modelling oxide–oxide and oxide–metal interfaces, 1311
Modelling oxide–oxide and oxide–metal interfaces, 1311
Electron paramagnetic resonance investigation of paramagnetic point defects in ZnO and ZnO-supported ruthenium, 1587
Temperature-programmed reduction study of NiO–MgO interactions in magnesia-supported Ni catalysts and NiO–MgO physical mixture, 2663
Anomaly in the rate of oxygen absorption by zirconium due to the formation of oxide at the surface: autocatalytic reaction model of oxide nucleation, 3797

Oximes
Nitroxide radicals formed by addition of phosphorus-centred radicals to aliphatic oximes. An electron paramagnetic resonance study, 3207

Oxirane–hydrogen bromide dimer
Non-reactive interaction of oxirane and hydrogen bromide: isolation of an oxirane–hydrogen bromide dimer in a supersonic jet and its characterisation by microwave spectroscopy, 3975

Oxygen cluster
Metastable decay of oxygen cluster cations and anions, 2395
Effect of oxygen-enhanced intersystem crossing on the observed efficiency of formation of singlet oxygen, 3075

Palladium
Promotion effect of Fe on the selectivity of Pd zeolite-X in methanol synthesis, 419
Photoelectron spectroscopy of silver and palladium cluster anions. Electron delocalization *versus* localization, 2483
CO oxidation over small Pd particle model catalysts. A static secondary ion mass spectrometry study, 2749
Structure-sensitivity of the deactivation of Pd/SiO_2 for methylcyclopropane hydrogenolysis by CO, 2911
Reduction of supported and unsupported palladium oxide catalysts using methane. Characterization of active oxides, 3671

***para*-Hydrogen**
The rotational excitation of NH_3 by *ortho*- and *para*-H_2, 1659

Paraquat
Electron paramagnetic resonance spectroscopy of electrodeposited species from solutions of 1,1'-bis-(*p*-cyanophenyl)-4-4'-bipyridilium (cyanophenyl paraquat, CPQ), 2583
Study of the absorption spectra of pyrene complexed to paraquat in pentanol–sodium dodecylsulphate micelles, 2955

Partial ideal solution model
Pure component A + classically ideal solution $(B + C + \cdots) = ?$, 3641

Partial molar heat capacity
Partial molar heat capacities and volumes of some nucleic acid bases, nucleosides and nucleotides in aqueous urea solutions at 298.15 K, 905

Partial molar volume
Partial molar heat capacities and volumes of some nucleic acid bases, nucleosides and nucleotides in aqueous urea solutions at 298.15 K, 905
Thermodynamic properties of peptide solutions. Part 6.—The amino acid side-chain contributions to the partial molar volumes and heat capacities of some tripeptides in aqueous solution, 3117

Particle size distribution
Kinetics for the surface-controlled dissolution of a powder dispersion with a log-normal distribution in particle size, 2163

Partition coefficient
Effects of temperature on the partitioning and adsorption of $C_{12}E_5$ in heptane–water mixtures, 3111

Peptide
Thermodynamic properties of peptide solutions. Part 6.—The amino acid side-chain contributions to the partial molar volumes and heat capacities of some tripeptides in aqueous solution, 3117

Period doubling
Period doubling and chaos during the oscillatory ignition of the $CO + O_2$ reaction, 3701

Permittivity
Permittivity at 70 GHz of water in aqueous solutions of some amino acids and related compounds, 3577

Permselectivity
Criteria governing ion and solvent transport rates in electroactive polymers. The existence of kinetic permselectivity, 437

Peroxide-modified titania
Study of peroxide-modified titanium dioxide (anatase), 385

Peroxodisulphate
Solvent effects on the iodide–peroxodisulphate reaction: a quantitative approach, 3731

Peroxyl radical
Structure and reactivity of peroxyl and sulphoxyl radicals from measurement of oxygen-17 hyperfine couplings: relationships with Taft substituent parameters, 3279

Perturbation theory
Thermal explosion: escape times in the uniform temperature approximation. Part 1.—Effects of parameters perturbations, 597
Analysis of isotope effects by perturbation theory technique. $^{18}O/^{16}O$ isotope effects in alkyl ethers, 1411
Analysis of isotope effects by the perturbation theory technique: $^{13}C/^{12}C$ isotope effects in alkyl ethers, 3871

Perylene
Limiting fluorescence anisotropies of perylene and xanthene derivatives, 2103

Phase
Influence of pressure and temperature on

microemulsion stability, 511
A combined ESR/X-ray diffraction study of the Y_2O_3–BaO–CuO phase diagram, 675
Introductory Lecture: Clusters, melting, freezing and phase transitions, 2343
Investigation of the phase-transition behaviour in solid tetramethylene sulphoxide, 2617
Phase transition between liquid-like and crystal-like structures of deionized colloidal suspensions, 2871
Kinetics and mechanism of the cation-ordering transformation in Li_2TiO_3-Li_3NbO_4 solid solutions, 2979
Powder X-ray diffraction studies of a low-temperature phase transition in the n-hexadecane/urea inclusion compound, 3135
Cooperation between the α and γ phases of bismuth molybdate in the selective oxidation of propene, 3145

pH-dependent equilibria
Computer-aided electron paramagnetic resonance spectroscopy in the speciation of pH-dependent equilibria for copper {[2,2′-[1-(1-ethoxyethyl)-1,2-ethanediylidene]bis[*N*,*N*-dimethylhydrazine-carbothioamidato]](2-)N^2,$N^{2'}$,*S*,*S*′} complex, 2575

pH field-effect transistors
Thermodynamic analysis of pH-FET and ISFET response, 2249
Resonance Raman investigation of pH-dependent equilibria of water-soluble iron porphyrins, 4017

Phosphorus-centred radical
Radical cation of $HP(O)(OMe)_2$: electron paramagnetic resonance evidence for competition between bonding to solvent, a 1,2-hydrogen shift, and a 1,4-hydrogen shift, 2173
Nitroxide radicals formed by addition of phosphorus-centred radicals to aliphatic oximes. An electron paramagnetic resonance study, 3207

Phosphorus pentachloride
Modification of zeolite Y using phosphorus pentachloride, 757

Photocatalysis
Photocatalytic activities of potassium-doped lead niobates and the effect of poling, 2277

Photo-CE mechanism
The photo-CE mechanism: the oxidation of tris-(*p*-tolyl)amine in acetonitrile at an illuminated platinum electrode, 3603

Photochemistry
Spatial inhomogeneity effects in photochemical kinetics. Competition between first-order and second-order reactions of a photochemically generated intermediate, 61
Tris(bipyridine)ruthenium(II)-photosensitized reduction of a Co^{III}-Schiff base complex in a network of gelatin hydrogel and in an aqueous gelatin solution, 609
Photoinduced electron transfer in viologen-linked porphyrins (p-PC_nV), 811
Photochemical properties of PbS microcrystallites prepared in Nafion, 815
A study of the $(CH_3)_4Si + H \rightleftharpoons H_2 + (CH_3)_3SiCH_2$ system, 1407
A three-dimensional quantum reactive scattering study of the I + DI reaction and of the IDI^- photodetachment spectrum, 1729
A comparison of scattering and L^2 photodetachment Franck–Condon factors for reduced dimensionality $ClHCl^- \rightarrow Cl + HCl + e^-$, 1737
Time-dependent quantum dynamics of molecular photofragmentation processes, 1741
Time-dependent quantum dynamics of molecular photofragmentation processes, 1741
Infrared photodissociation of mass-selected molecular clusters, 1923
Spectroscopic and photochemical perturbations of weak interactions on electronic surfaces of methyl iodide, 2043
Ultraviolet photodissociation of Ar_2^+ and Ar_3^+, 2069
Aminotetrazine–argon, the world's smallest 'large gas-phase cluster', 2503
Photodissociation of metal cluster ions. Dissociation energies and optical spectroscopy, 2537
Kinetics of the reactions of the SO_4 radical with SO_4^-, $S_2O_8^{2-}$, H_2O and Fe^{2+}, 2557
Kinetic and electron paramagnetic resonance studies of photochemical reactions of gas mixtures of methane, ammonia and water, 2565
Matrix effects on the photodissociation of alkane radical cations. Part 1.—Nature of the photodissociation of heptane radical cations in perfluorohexane and 1,1,2-trichlorotrifluoroethane matrices at cryogenic temperatures, 3299
TiO_2 corrosion during water photocleavage using Rh/TiO_2 suspensions, 3441
The photo-CE mechanism: the oxidation of tris-(*p*-tolyl)amine in acetonitrile at an illuminated platinum electrode, 3603
Photolysis of HOCl at 248 nm in a supersonic molecular beam: laser-induced fluorescence spectra of OH, 3831
Reduction of dinitrogen to ammonia in aqueous solution mediated by colloidal metals, 3927
Factors influencing efficiencies of TiO_2-sensitised photodegradation. Part 1.—Substituted benzoic acids: discrepancies with dark-adsorption parameters, 3935

Photochromism
Transient optical dichroism in a photochromic polymer glass and its relationship to molecular reorientation, 1013
Photochromism of a surface-active spirobenzopyran moiety in dioxane–water mixtures and self-assembled surfactant aggregates, 3613
Comparison of the photochromism of a spirobenzopyran derivative in unilamellar surfactant vesicles and solvent-cast surfactant films, 3913

Photoconductivity
Semiconductivity and photoconductivity studies of metal complexes of 5,14-dihydrodibenzo[*b*,*i*][1,4,8,11]tetra- azacyclotetradecine single crystals, 109
Photocurrent kinetics of Group III metal–(phthalocyaninato)–halogen complexes in vacuum and oxidising gas atmospheres, 115

Photodynamics
Photodynamics of the S_1 state of some hydroxy- and amino-substituted naphthoquinones and anthraquinones, 3861

Photo-EC′ mechanism
The photo-EC′ mechanism: reduction of t-butyl bromide by excited-state tetrachlorobenzoquinone radical anion, 2951

Photoelectrochemistry
Photoelectrochemical electron spin resonance. Part 4.—The 'photo-ECE' reaction and the reduction of 1-halogenoanthraquinones, 663
Pulsed photoelectrochemistry of titanium dioxide, 1527

Photoelectron spectroscopy
Multiphoton ionization processes in HCl studied by photoelectron spectroscopy, 2035
Photoelectron spectroscopy of silver and palladium cluster anions. Electron delocalization *versus* localization, 2483
Vacuum ultraviolet photoelectron spectroscopic study of the NH_2O and HNO molecules, 3843

Photogalvanic system
Electrochemical study of the reaction between leucodye and Fe^{III} in dye-based photogalvanic systems, 105

Photoionization
Photoionization and excitation energies of an Al atom in Ar_N clusters, 2375
Photoionization of Na, Cs, Ca and Ba oxide clusters, 2489

Photon correlation spectroscopy
Determination of an average rate constant for the rapid coagulation of polydisperse suspensions using photon correlation spectroscopy, 671
Monitoring aggregation of dilute suspensions in the intermediate regime using photon correlation spectroscopy, 3763

Photo-oxidation
Effects of temperature and wavelength on the primary process in the photo-oxidation of iron(II) ion, 615

Photophysics
Photophysics of clusters. Intracluster reactions and dynamics of dissociation processes, 2417
A photophysical study of some purpurins, 3081

Photopolymerization
Thermal decay of trapped radicals produced during the photopolymerization of diacrylates, 3273

Photosensitisation
Efficiency of triplet-photosensitised singlet oxygen generation in benzene, 2671

Physisorption
Titration of H_2SO_4/SiO_2-mounted catalysts in cyclohexane with pyridine based on a new acidity function considering the effect of physisorption sites, 3447

Pillared clay
Electron spin resonance and X-ray diffraction studies of copper(II)-ion-doped Zr_4-pillared montmorillonite clay, 691

Piperidinecarboxylic acid
Proton transfer in intramolecular hydrogen bonds with large proton polarizability in 1-piperidinecarboxylic acids. Temperature, solvent and concentration dependence, 627

Pitzer method
Higher-order limiting laws and the Pitzer methods for symmetrical mixed electrolytes, 3897

Plasma
Mechanism of CuCl and CuO chemiluminescence in microwave-induced plasma afterglows at 300 K, 603
Effects and role of basic nitrogen-derived ultrathin films on 'plasma-reduction', 2975

Plasmolysis
Physicochemical properties of a novel nitrogen-containing plasma-deposited ultrathin film, 2971

Platinised alumina
Kinetic study of the reduction of water to hydrogen by reduced methyl viologen mediated by platinised alumina, 1417

Platinum
Influence of hydrogen chloride addition on the catalytic isomerization activity of chlorinated alumina and chlorinated platinum–alumina solids. Superacid behaviour, 567
Electrocatalytic oxidation of mesoxalic acid on a polycrystalline platinum electrode modified by foreign metals, 1845
Modifications of platinum model catalysts by sulphur: effect on reactions of labelled hexanes, 2719
Infrared spectroscopic comparison of the chemisorbed species from ethane, propene, but-1-ene and *cis*- and *trans*-but-2-ene on Pt(111) and on a platinum/silica catalyst, 2757
Effects of strong metal–support interactions on hydrocarbon reactions over titania-supported platinum. Mode of action of a near-selective hydrogenolysis catalyst, 2789

Point defect
The entropy of a point defect in an ionic crystal, 1197
Point defects and their interaction with impurities in metals, 1203
Electron paramagnetic resonance investigation of paramagnetic point defects in ZnO and ZnO-supported ruthenium, 1587

Point of zero charge
Effect of temperature on the point of zero charge and surface charge of TiO_2, 3437

Poisson–Boltzmann equation
Ion binding in polyelectrolyte solutions and the Poisson–Boltzmann equation, 2607
Thermodynamic consistency in the symmetric Poisson–Boltzmann equation for primitive model electrolytes, 3383

Polarisation
Polarisability of the bromide anion in NaBr. Parameters for simulation of molten NaBr, 1019
Characterisation of solvent properties of aromatic hydrocarbon mixtures, 1449
Permanent and induced dipole moments in electronically excited aromatic molecules. The polarizability in excited states, 2079
Polarization effects of poled ferroelectric substrates upon surface conductivity changes in phthalocyanine and SnO_2 films following gas adsorption, 2611
Analysis of some significant processes for molecular polarization, 3525

Proton polarizability of $N^+H \cdots N \rightleftharpoons N \cdots H^+N$ hydrogen bonds and far-infrared continua of nitrogen-base systems. A Fourier-transform infrared spectroscopic study, 3557

Polarity
Solvent polarity of aqueous polymer solutions as measured by the solvatochromic technique, 519

Poly(methyl methacrylate)
Adsorption of polystyrene and poly(methyl methacrylate) onto a silica surface studied by the infrared technique. Comparison with theory., 1383

Poly(vinylpyrrolidone)
Aggregation behaviour of an azo dye containing a trifluoromethyl group on poly(vinylpyrrolidone), 4031

Polyamine
Thermodynamics of complex formation in dimethyl sulphoxide. Silver(I) with quadridentate polyamines, 2841

Polyaromatic solvents
Conductivity of tetra-alkylammonium salts in polyaromatic solvents, 1453

Polybithiophene
Analytical X-ray photoelectron spectroscopic investigation of the modification of polybithiophene (pbT) under electrochemical cycling, 3769

Polydisperse suspension
Determination of an average rate constant for the rapid coagulation of polydisperse suspensions using photon correlation spectroscopy, 671

Polydispersity
Effects of polydispersity on osmotic properties of colloidal suspensions, 3419

Polyelectrolyte
Ion binding in polyelectrolyte solutions and the Poisson–Boltzmann equation, 2607

Polyhydric alcohols
Enthalpies and entropies of sublimation, vaporization and fusion of nine polyhydric alcohols, 75

Polyhydroxy
Volumetric properties of aqueous solutions of alcohols and diols at 25°C, 3891

Polymer
Solvent polarity of aqueous polymer solutions as measured by the solvatochromic technique, 519
Volume-fraction profiles of adsorbed polymers, 1323
A study of block copolymer adsorption kinetics *via* internal reflection interferometry, 1341
Strong-stretching and Scheutjens–Fleer descriptions of grafted polymer brushes, 1349
Kinetics of bridging flocculation. Role of relaxations in the polymer layer, 1355
Forces between mica surfaces bearing adsorbed homopolymers in good solvents. The effect of bridging and dangling tails, 1363
Investigation by optical evanescent waves of the structure of adsorbed polymer layers in good solvents, 1369
Chemisorption of linear and cyclic polymethylsiloxanes on alumina studied by Fourier-transform infrared spectroscopy, 1377
Infrared spectroscopic investigations of the adsorption of ethylene oxide–propylene oxide copolymers from CCl_4 on pyrogenic silica, 1389
Association and surface properties of block-copoly(oxyethylene/oxypropylene/oxyethylene) L64, 1569
Collision target-gas effects during the tandem secondary-ion mass-spectrometric analysis of polymers, 1863
Simple determination of the osmotic pressure of sterically stabilised colloids, 3693

Polymer film
Charge percolation in electroactive polymer films, 2905

Polymer glass
Transient optical dichroism in a photochromic polymer glass and its relationship to molecular reorientation, 1013

Polystyrene
Adsorption of polystyrene and poly(methyl methacrylate) onto a silica surface studied by the infrared technique. Comparison with theory, 1383
Indirect evidence for hydration forces in the deposition of polystyrene latex colloids on glass surfaces, 1623

Population inversion
The rotational excitation of NH_3 by *ortho*- and *para*-H_2, 1659

Porphyrin
Photoinduced electron transfer in viologen-linked porphyrins (p-PC_nV), 811
ENDOR studies of π-electron delocalization in covalently linked porphyrin dimers. Model systems for the primary donor in photosynthesis?, 1087

Positron annihilation lifetime spectroscopy
Studies on positronium–glycine complex formation using a positron annihilation lifetime spectrometer with BaF_2 detectors, 623

Positronium
Studies on positronium–glycine complex formation using a positron annihilation lifetime spectrometer with BaF_2 detectors, 623

Potassium
Electron spin resonance and proton ENDOR studies in potassium hydrogen oxalate single crystals, 899
Photocatalytic activities of potassium-doped lead niobates and the effect of poling, 2277

Potential anisotropy
Exact and approximate calculations for the effect of potential anisotropy on integral and differential cross-sections: Ar–N_2 rotationally inelastic scattering, 1649

Potential-energy surface
The non-reactive j_z-conserving approximation as a probe for the entrance-channel dynamics in reactive collisions: H + H_2, 1669
Representation in hyperspherical and related coordinates of the potential-energy surface for triatomic reactions, 1681
Comparison of quantum scattering calculations for the H + H_2 reaction using the LSTH and DMBE potentials, 1701
Ab initio studies of acetylene tetramer and pentamer, 1931
Spectroscopic and photochemical perturbations of weak interactions on electronic surfaces of methyl iodide, 2043
State-selective photochemistry: the predissociation dynamics of jet-cooled dichlorofluoronitrosomethane (CCl_2FNO) in the 600 nm region, 2049

Powder dispersion
Kinetics for the surface-controlled dissolution of a powder dispersion with a log-normal distribution in particle size, 2163

Precipitation
The precipitation of cadmium sulphide in aqueous solutions, 973

Predissociation
State-selective photochemistry: the predissociation dynamics of jet-cooled dichlorofluoronitrosomethane (CCl_2FNO) in the 600 nm region, 2049
Laser-induced fluorescence from the predissociating formyl radical. Part 2.—Analysis of dispersed emission from the $\tilde{A}$–$\tilde{X}$ transition, 3837

Principal factor analysis
Resolution of heterogeneous fluorescence by the combined use of indirect excitation decay-associated spectral analysis and principal factor analysis, 3853

Promotion
Raman spectroscopic studies of the effects of tin promotion on a rhenium/alumina dismutation catalyst, 1603
Kinetics and mechanism of the water-gas shift reaction catalysed by the clean and Cs-promoted Cu(110) surface: a comparison with Cu(111), 2725
Genesis of zinc–cobalt promoted hydrotreating catalysts: adsorption isotherms of Zn and/or Co on Al_2O_3, 2765

Propene
Role of solid-state structure in propene hydrogenation with nickel catalysts, 739
Cooperation between the α and γ phases of bismuth molybdate in the selective oxidation of propene, 3145
Kinetic features and lattice-oxygen participation in propene oxidation over Bi–Mo oxide and some Mo oxide catalysts, 4077

Propylene carbonate
Solution thermodynamics of lanthanide(III) cations (La^{3+}, Pr^{3+} and Nd^{3+}) and cryptands in propylene carbonate and in acetonitrile, 89

Protein denaturation
Thermodynamic model for isobaric heat capacities associated with cold and warm thermal denaturation of proteins, 1437

Proton exchange
Nuclear magnetic resonance relaxation studies of proton exchange in methanol–water mixtures, 481

Proton sponge
Infrared spectra and protonation of 1,8-bis(dimethylamino)naphthalene in acetonitrile, 1777

Proton transfer
Influence of specific interaction effects on the proton-transfer equilibrium in intermolecular hydrogen bonds of carboxylic acids and phenols with amines, 301
Proton transfer in intramolecular hydrogen bonds with large proton polarizability in 1-piperidinecarboxylic acids. Temperature, solvent and concentration dependence, 627
Influence of viscosity and dielectric relaxation on the intramolecular adiabatic proton transfer in the electronically excited free base of quinacrine, 3717

Pseudopotential
Car–Parrinello methods, 1221

Pulsed dye-laser excitation
Kinetic study of the collisional behaviour of $Mg(3\,^3P_J)$ with alkanes at elevated temperatures following pulsed dye-laser excitation, 795

Pulse radiolysis
Pulse radiolyses of anthraquinone and anthraquinone–triethylamine in acetonitrile and toluene at room temperature, 95
One- and two-electron reduction of quinizarin and 5-methoxyquinizarin: A pulse radiolysis study, 1483

Purpurin
A photophysical study of some purpurins, 3081

Pyrene
Study of the absorption spectra of pyrene complexed to paraquat in pentanol–sodium dodecylsulphate micelles, 2955
Fluorescence quenching of pyrene by *N*-hexadecyl pyridinium chloride in mixed anionic micelles, 4043

Pyridine
Acid sites in dehydroxylated Y zeolites: an X-ray photoelectron and infrared spectroscopic study using pyridine as a probe molecule, 3949

Pyrilium
First example of a pyrilium salt dimerisation in solution, 2819

Quadrupole coupling
Electronic structure and quadrupole couplings of the heterocycles 2-imidazolidinone, 2-imidazolidinethione and 2-imidazolidineselenone by the MS-LDA method, 889
Dicyanomethane: microwave spectrum, quadrupole coupling and structure, 1981

Quantum diffusion
Quantum diffusion in solids, 1215

Quantum dynamics
Exact quantum dynamics and tests of the distorted-wave approximation for the $O(^3P)$ + HD reaction, 1705
Time-dependent quantum dynamics of molecular photofragmentation processes, 1741

Quantum mechanics
Car–Parrinello methods, 1221
Rotational disintegration of polyatomic molecules, 3171

Quantum scattering
Iterative solution in quantum scattering theory. The log derivative Kohn approach, 1641
Comparison of quantum scattering calculations for the H + H_2 reaction using the LSTH and DMBE potentials, 1701

Quenching
Kinetics of partly diffusion-controlled reactions. Part 23.—The case of ionic reactions, 2145

Kinetics of fluorescence quenching of *n*(9-anthroyloxy) stearic acids by tertiary amines in non-ionic micelles of triton X-100, 2155

Quinone
One- and two-electron reduction of quinizarin and 5-methoxyquinizarin: A pulse radiolysis study, 1483

Quinquinary system
Solubilities and vapour pressures in the quinquinary system NaCl–KCl–$MgCl_2$–$CaCl_2$–H_2O. Part 2.—Predictions and measurements at 30–45°C, 495

Radiation damage
Effects of ionising radiation on deoxyribonucleic acid. Part VI.—Effects of hydroxyl radical scavengers on radiation damage to DNA, 3267

Radiation-induced segregation
Radiation-induced segregation in metals, 1263

Radiative lifetime
Laser-induced fluorescence excitation spectrum and radiative lifetime of Cl_2^+, 2009

Radical
Kinetics of the reactions of the SO_4 radical with SO_4, $S_2O_8^{2-}$, H_2O and Fe^{2+}, 2557
Electron paramagnetic resonance study of imine radical cations in low-temperature solid matrices, 3303
A first radical cation chelate ligand: electron paramagnetic resonance spectra of singly reduced 3,3′-diazamethylviologen $DAMV^{++}$ and the rhenium(I) complex $[(DAMV^{++})Re^+(CO)_3(PPh_3)]^{2+}$, 3337
Reactions of HO_2 with NO and NO_2 studied by mid-infrared laser magnetic resonance, 3355
Mirror inversion of the low-symmetry ground-state structures of the methylcyclohexane and 1,1-dimethylcyclohexane radical cations. An electron paramagnetic resonance study, 3377

Radiolysis
Radiation-induced C—C bond cleavage in 1,2-diarylethanes as model compounds of coal. Part 1.—Pulse and steady-state radiolysis of 1,2-di(1-naphthyl)ethane, 311

Raman difference spectroscopy
Cation–surfactant interactions in aqueous alkylphenoxypolyoxyethylene salt solutions. A Raman spectroscopic study, 1109

Raman scattering
Nature of the improved Raman scattering from α-copper phthalocyanine particles on a compacted electrode, 4065

Raman spectroscopy
Raman spectra of concentrated solutions of magnesium and aluminium chloride in water and deuterium oxide, 471
Molecular reorientation in acetonitrile. A comparison of diffusion coefficients from Raman bandshapes and nuclear magnetic resonance relaxation times, 593
Vibrational spectra of *N*-acylglycine oligomers and the long *N*-acyl chain effect, 1561
Raman spectroscopic studies of the effects of tin promotion on a rhenium/alumina dismutation catalyst, 1603
Infrared laser-Raman and X-ray diffraction investigation of MoO_3/ZrO_2 and the oxidation of (*Z*)-but-2-ene, 2291
Investigation of the phase-transition behaviour in solid tetramethylene sulphoxide, 2617
Raman spectroscopic investigations of concentrated aqueous solutions of $InCl_3$ and of $InBr_3$, 3883

Random forces
Langevin dynamics simulations of electrolyte solutions. Influence of friction and random forces, 2139

Rate constant
Estimation of rate constants for near-diffusion-controlled reactions in water at high temperatures, 1539
Rate constants for the reactions of CH_3O and C_2H_5O with NO_2 over a range of temperature and total pressure, 1751
Rate constants for the reactions of CH_3O and C_2H_5O with NO over a range of temperature and total pressure, 1757
Vibration–vibration energy transfer from $H_2(v = 1)$ and $D_2(v = 1)$ to selected diatomic and polyatomic hydrides and deuterides, 3983
Kinetics of the reactions of CH_3O and CD_3O with NO, 4001

Rate-determining step
A new kinetic approach for multi-route systems: A generalisation of the rate-determining step approximation, 789

Reabsorption
True luminescence spectra and luminescence quantum yields of molecules adsorbed on light-scattering media. Part 1.—Theory, 3707

Reaction pathway
Structures, energies and harmonic vibrational frequencies for the reactions of NH with NO and NO_2, 3519

Reactive scattering
New theoretical methods for molecular collisions: the complex angular-momentum approach, 1627
The non-reactive j_z-conserving approximation as a probe for the entrance-channel dynamics in reactive collisions: H + H_2, 1669
Isotope effects of the collinear reactions F + HBr, F + DBr and F + MuBr, 1689
A new accurate (time-independent) method for treating reactive collisions: conversion of a scattering problem into a bound problem, 1721
A three-dimensional quantum reactive scattering study of the I + DI reaction and of the IDI^- photodetachment spectrum, 1729
A comparison of scattering and I^2 photodetachment Franck–Condon factors for reduced dimensionality $ClHCl^- \rightarrow Cl + HCl + e^-$, 1737
Preferred transition-state geometry in the reaction of fluorine atoms with iodomethane molecules, 2059

Redox
Kinetic study of the reduction of water to hydrogen by reduced methyl viologen mediated by platinised alumina, 1417
Mechanisms of methylene blue electrode processes studied by *in situ* electron paramagnetic resonance and ultraviolet–visible spectroelectrochemistry, 3125
Kinetics of redox dissolution of soft-centre particles, 3405

Reduction
Reduction of Cu^{2+} cations supported on Y zeolites, 1007

Re-emission
True luminescence spectra and luminescence quantum yields of molecules adsorbed on light-scattering media. Part 1.—Theory, 3707

Reflection-absorption infrared spectroscopy
CO adsorbed on Cu(100): RAIRS at ultrahigh vacuum and higher pressures, 2743

Reflection spectroscopy
Elastic modulus of crystal-like structures of deionized colloidal spheres in aqueous organic solvent mixtures, 151

Refractive index
Rapid measurement of critical micelle concentrations by a flow technique, 3487

Relative permittivity
Determination of diffusion coefficients and effective charge numbers of lignosulphonate. Influence of relative permittivity of the solvent, 3097

Relativistic corrections
Relativistic corrections for the ground and first excited states of H_2^+, HD^+ and D_2^+, 3495

Relaxation kinetics
Relaxation kinetics of ion binding, 639

Resonance-enhanced multiphoton ionisation
Characterisation of the $\tilde{E}\ ^1B_1$ ($3da_1 \leftarrow 1b_1$) Rydberg state of water by resonance-enhanced multiphoton ionisation (MPI) spectroscopy, 213
A reinvestigation of the Rydberg states of H_2S and D_2S by two-photon resonant multiphoton ionisation spectroscopy, 2027
Multiphoton ionization processes in HCl studied by photoelectron spectroscopy, 2035
Resonance-enhanced multiphoton ionisation of vibrational state selected NH_3 molecules: a reinvestigation, 2921

Resonance Raman
Twisted non-charge-transfer electronically excited triplet states of aromatic aldehydes and ketones revealed by resonance Raman scattering and transient dielectric loss/interconversion between two populated triplet states, 2083
Resonance Raman investigation of pH-dependent equilibria of water-soluble iron porphyrins, 4017

Resonant sextet
Why can so few benzenoids be completely drawn with Clar's resonant sextets? An analysis using 'branching graphs' and a 'coiled hexagon code', 447

Reversed micelle
Electron paramagnetic resonance and ENDOR study of semiquinones in reversed micelles, 3191

Rh/Al_2O_3 catalyst
Infrared study of the adsorption of NO, NO_2 and CO on Rh/Al_2O_3 catalysts, 571

Rhenium complex
A first radical cation chelate ligand: electron paramagnetic resonance spectra of singly reduced 3,3′-diazamethylviologen $DAMV^{++}$ and the rhenium(I) complex $[(DAMV^{++})Re^+(CO)_3(PPh_3)]^{2+}$, 3337

Rheology
Rheology of colloidal suspensions. The isokinetic shear-flow hard-sphere model, 2121
Flow of ordered latex suspensions: yielding and catastrophic shear thinning, 2629
Rheological and small-angle X-ray scattering investigations on the shape and ordered arrangement of native ovalbumin molecules in aqueous colloids, 2877

Rhodium
Infrared study of the interaction of CO with alumina-supported rhodium, 389
Surface chemistry of Rh carbonyls and nitrosyls on dealuminated Y-zeolite at low temperature, 2321
Surface chemistry of Rh carbonyls and nitrosyls on dealuminated Y-zeolite at low temperature, 2321
Coadsorption and interaction of nitric oxide and carbon monoxide on Rh supported on highly dealuminated Y zeolite. Formation of mixed Rh carbonyl–nitrosyls on the surface, 2329
Electron paramagnetic resonance and gas chromatographic study of ethene dimerization catalysed by Rh/SiO_2: effect of silica pore size, 3015

Ring inversion
Ring inversion in tetrahydrothiophen-3-one. A microwave study, 5
Conformation and ring inversion in γ-butyrolactone. Part 1.—Microwave spectrum, 453
Conformation and ring inversion in γ-butyrolactone. Part 2.—*Ab initio* and flexible model computations, 459

Rock-forming mineral
Mass transport in minerals, 1281

Rose bengal radical
Rose bengal radicals and their reactivity, 3879

Rotamer
Model calculations of chemical interactions. Part 1.—Intramolecular interactions and rotational barriers, 777

Rotating disc electrode voltammetry
Reduction of maleate dianion at a mercury electrode in aqueous solution. A CEEC or CECE mechanism?, 657

Rotating ring–disc electrode
Kinetics of comproportionation of the bipyridilium salt *p*-cyanophenyl paraquat in propylene carbonate studied by rotating ring–disc electrodes, 3597
Rotating ring–disc electrode study of the enhanced oxygen evolution on an activated ruthenium electrode, 3743

Rotational barrier
Model calculations of chemical interactions. Part 1.—Intramolecular interactions and rotational barriers, 777
Rotational contour analysis of the 0_0^0 band of the $\tilde{A}\ ^1A_u$–$\tilde{X}\ ^1A_g$ electronic transition of *trans*-oxalyl fluoride, 2015

Rotational disintegration
Rotational disintegration of polyatomic molecules, 3171

Rotational excitation
The rotational excitation of NH_3 by *ortho*- and *para*-H_2, 1659
Rotationally inelastic scattering
Exact and approximate calculations for the effect of potential anisotropy on integral and differential cross-sections: Ar–N_2 rotationally inelastic scattering, 1649
Rotational spectra
Rotational spectrum of $(CH_3)_3P\cdots HCl$ and a comparison of properties within the series of axially symmetric dimers $R_3Y\cdots HCl$, where Y = N or P and R = H or CH_3, 1915
Rotational transitions
Ring inversion in tetrahydrothiophen-3-one. A microwave study, 5
Rotator phase
Studies of the anisotropic self-diffusion and reorientation of butylammonium cations in the rotator phase of butylammonium chloride using ^1H magnetic resonance, electrical conductivity and thermal measurements, 3777
Ruthenium
Kinetics of corrosion of ruthenium dioxide hydrate by bromate ions under acidic conditions, 955
Effect of oxidation–reduction treatments on the infrared spectra of carbon monoxide chemisorbed on a Ru/TiO_2 catalyst, 979
Electron paramagnetic resonance investigation of paramagnetic point defects in ZnO and ZnO-supported ruthenium, 1587
Hydrogenolysis of alkanes. Part 5.—Effect of metal dispersion in ruthenium/alumina catalysts on the hydrogenolysis of propane and of n-butane, 2297
Structure and behaviour of $Ru_3(CO)_{12}$ supported on inorganic oxide surfaces, studied by EXAFS, infrared spectroscopy and temperature-programmed decomposition, 2645
Surface structure and catalysis for CO hydrogenation of the supported Ru species derived from the $Ru_3(CO)_{12}$ inorganic oxides, 2657
Rydberg
Characterisation of the $\tilde{E}\ ^1B_1$ ($3da_1 \leftarrow 1b_1$) Rydberg state of water by resonance-enhanced multiphoton ionisation (MPI) spectroscopy, 213
A reinvestigation of the Rydberg states of H_2S and D_2S by two-photon resonant multiphoton ionisation spectroscopy, 2027
Vacuum-ultraviolet absorption spectrum of acetaldehyde, CH_3CHO, and the related deuterides CH_3CDO and CD_3CDO, 3349
Salt imbibition
Fourier-transform infrared spectroscopic measurement of salt imbibition by zeolites, 3683
Salting-out coefficient
Application of scaled particle theory to the salting out of single hydrophobic ions, 931
Salt velocity correlation function
Salt velocity correlation functions: a microscopic interpretation. Part 2.—Solution of two or more binary electrolytes with a common ion, 1057
Samarium oxide
C—H exchange reaction of methoxide species on an Sm_2O_3 catalyst observed by *in situ* infrared spectroscopy, 3489
Scanning electron microscopy
Fourier-transform infrared, scanning electron microscopy and magic-angle-spinning nuclear magnetic resonance studies of silicalite synthesized in non-alkaline media, 3679
Scattering
Energy transfer in polyatomic molecules. Anharmonic couplings in H^+–CF_4 collisions, 1663
Representation in hyperspherical and related coordinates of the potential-energy surface for triatomic reactions, 1681
A new accurate (time-independent) method for treating reactive collisions: conversion of a scattering problem into a bound problem, 1721
Infrared photodissociation of mass-selected molecular clusters, 1923
Collision dynamics of Cs + $ICH_3 \rightarrow CsI + CH_3$: backward *vs.* sideways scattering as a function of collision energy, 2063
Secondary ion
Increase in yields of secondary ions by oxidation of zirconium at high temperatures and low oxygen pressures, 157
Collision target-gas effects during the tandem secondary-ion mass-spectrometric analysis of polymers, 1863
SeH radical
Structural properties of the SeH radical, determined by laser magnetic resonance at mid- and far-infrared wavelengths, 1995
Selenium cluster
Extended X-ray absorption fine structure study of polynuclear cationic selenium clusters, 1579
Selenocyanate
The far-ultraviolet solution spectroscopy of cyanide, cyanate, selenocyanate and tellurocyanate. The solution spectroscopy of the NCX series, 257
Self-consistent field theory
Theoretical ^{14}N nuclear quadrupole coupling surface for ammonia, 1991
Self-diffusion
Studies of the anisotropic self-diffusion and reorientation of butylammonium cations in the rotator phase of butylammonium chloride using ^1H magnetic resonance, electrical conductivity and thermal measurements, 3777
Self-dimer
Formation of mixed dimers in solutions of basic dyes, 3551
Self-reaction
Flash photolysis study of the spectra and self-reactions of neopentylperoxy and t-butylperoxy radicals, 2927
Semiconductivity
Semiconductivity and photoconductivity studies of metal complexes of 5,14-dihydrodibenzo[*b,i*][1,4,8,11]tetra- azacyclotetradecine single crystals, 109
Semiquinone
Electron paramagnetic resonance and ENDOR study of semiquinones in reversed micelles, 3191
Shear flow
Correlation functions in non-Newtonian couette flow. A group theory and molecular dynamics approach, 1041
Rheology of colloidal suspensions. The isokinetic shear-flow hard-sphere model, 2121
Granular dynamics simulations of colloidal suspensions: scaling effects of stabilisation forces, 2593
Shear thinning
Flow of ordered latex suspensions: yielding and catastrophic shear thinning, 2629
Silacyclohexyl radical
Electron paramagnetic resonance study of silacyclohexyl and 1-methylsilacyclohexyl radicals, 3229
Silica
Adsorption of xenon on silica gel. Part 1.—Thermophysical properties of the adsorbate, 171
Adsorption of xenon on silica gel. Part 2.—Hysteresis and capillary phase transitions, 175
Adsorption of isobutene on partially hydrophobized Aerosil, 539
The role of sodium ions as adsorption sites in silicalite-1, 561
Nuclear magnetic resonance study of the dealumination of an amorphous silica–alumina catalyst, 1599
Critical wetting, flocculation of silica particles in near-critical lutidine–water mixtures and related phenomena, 2263
Structure-sensitivity of the deactivation of Pd/SiO_2 for methylcyclopropane hydrogenolysis by CO, 2911
Hydrogen adsorption on silica-supported platinum studied by proton nuclear magnetic resonance spectroscopy, 3491
Fourier-transform infrared, scanning electron microscopy and magic-angle-spinning nuclear magnetic resonance studies of silicalite synthesized in non-alkaline media, 3679
Siloxane bridges as reactive sites on silica gel. Fourier transform infrared–photoacoustic spectroscopic analysis of the chemisorption of diborane, 3747
Estimation of the distribution of surface hydroxyl groups on silica gel, using chemical modification with trichlorosilane, 3751
Silicate
Mass transport in minerals, 1281
Silver
Photoelectron spectroscopy of silver and palladium cluster anions. Electron delocalization *versus* localization, 2483
Thermodynamics of complex formation in dimethyl sulphoxide. Silver(I) with quadridentate polyamines, 2841
Silylene
Absolute rate constants for the gas-phase reactions of silylene with silane, disilane and the methylsilanes, 27
Single-crystal metal
CO adsorbed on Cu(100): RAIRS at ultrahigh vacuum and higher pressures, 2743
Singlet oxygen
Efficiency of triplet-photosensitised singlet oxygen generation in benzene, 2671
Small-angle neutron scattering
Small-angle neutron scattering study of D_2O–alcohol solutions, 1503
Scattering studies of microemulsions in low-density alkanes, 2883
Swelling and dispersion of smectite clay colloids: determination of structure by neutron diffraction and small-angle neutron scattering, 3919
Small-angle X-ray scattering
Rheological and small-angle X-ray scattering investigations on the shape and ordered arrangement of native ovalbumin molecules in aqueous colloids, 2877
Smectic phase
Molecular structure and smectic properties: the substituent effect on the smectic A phase in biphenyl ester systems, 3429
Smectite
Smectite molecular sieves. Part 3.—Theoretical considerations of sorption kinetics, 545
Smoluchowski–Poisson–Boltzmann model
Mean first passage times of ions between charged surfaces, 3585
Sodium bromide
Polarisability of the bromide anion in NaBr. Parameters for simulation of molten NaBr, 1019
Soft cation
Ion–solvent interactions in mixtures of *N*-methyl-2-pyrrolidinone and *N*-methyl-2-thiopyrrolidinone, 823
Soft-centre particles
Kinetics of redox dissolution of soft-centre particles, 3405
Solid solution
Absorption of hydrogen by Pd–Nb(Ta) solid solution alloys, 377
Solid state
Quantum diffusion in solids, 1215
Car–Parrinello methods, 1221
Solid-state incorporation of Mn^{2+} ions in H-ZSM-5 zeolite, 3033
Solubility
Comments on the competitive preferential solvation theory, 307
Solubilities and vapour pressures in the quinquinary system NaCl–KCl–$MgCl_2$–$CaCl_2$–H_2O. Part 2.—Predictions and measurements at 30–45°C, 495
Solution studies of haptens containing azobenzoate and substituted azobenzoate anions in water and in methanol, 501
Relationship between retention of a solid solute in liquid and supercritical fluid chromatography and its solubility in the mobile phase, 855
Characterisation of solvent properties of aromatic hydrocarbon mixtures, 1449
Thermochemical investigations of associated solutions. Part 11.—Calculation of pyrene–dichlorobutane association parameters from measured solubility data, 2197
Magnetic resonance measurements of solubilizate distribution coefficients and surface

probabilities in some micelles, 3313
Solubilisation of hydrocarbons in surfactant monolayers, 3623
Solute–solute interaction
Temperature of maximum density behaviour of non-electrolytes in water, 911
Solvation
Comments on the competitive preferential solvation theory, 307
Ion–solvent interactions of some ions in dipolar aprotic solvents at 25°C, 489
Study of preferential solvation in mixed binary solvents by ultraviolet–visible spectroscopy, 1785
Preferential solvation in mixed solvents. Part 5.—Binary mixtures of water and organic solvents, 2215
Solvation of copper(I) perchlorate in mixed solvent systems containing acetonitrile. A ^{63}Cu, ^{65}Cu and ^{31}P nuclear magnetic resonance study, 2847
Ionic enthalpies of transfer in acetonitrile–water mixtures, 3391
Computer simulation and solvatochromic studies of the solvation of a betaine in single and mixed solvent systems, 3725
Solvatochromism
Relationship between solvatochromic solvent polarity and various thermodynamic and kinetic data in mixed solvent systems, 287
Solvent polarity of aqueous polymer solutions as measured by the solvatochromic technique, 5, 9
Permanent and induced dipole moments in electronically excited aromatic molecules. The polarizability in excited states, 2079
Effects of solvent and acid concentration on the absorption and fluorescence spectra of α,α-diaminonaphthalenes, 2095
Classification of organic solvents based on correlation between dielectric β parameter and empirical solvent polarity parameter E_T^N, 2237
Computer simulation and solvatochromic studies of the solvation of a betaine in single and mixed solvent systems, 3725
Solvent properties
Electron donor–electron acceptor complexes of carbonyldi-imidazoles and thiocarbonyldi-imidazoles with iodine. Effect of solvent polarity, 293
Criteria governing ion and solvent transport rates in electroactive polymers. The existence of kinetic permselectivity, 437
Characterisation of solvent properties of aromatic hydrocarbon mixtures, 1449
Classification of organic solvents based on correlation between dielectric β parameter and empirical solvent polarity parameter E_T^N, 2237
Solvent effects on the iodide–peroxodisulphate reaction: a quantitative approach, 3731
Solvolysis
Kinetics of the solvolysis of chloropenta-ammine-cobalt(III) ions in mixtures of water and glucose, 941
Kinetics of the solvolysis of chloropentacyanocobaltate (III) ions in water and in water–methanol mixtures, 1791
Sorption
Smectite molecular sieves. Part 3.—Theoretical considerations of sorption kinetics, 545
Study of ultramicroporous carbons by high-pressure sorption. Part 5.—CH_4 isotherm and diffusion kinetics, 2267
Volterra integral equations for the determination of diffusion coefficients in fast pressure-jump sorption kinetics experiments, 3087
Diffusion of C_4 hydrocarbons in silicalite-1, 3943
Sound velocity
Longitudinal acoustic relaxation of highly viscous liquids around room temperature, 917
Ultrasonic and electrochemical studies of the interactions of the drug chlorocyclizine hydrochloride with α-cyclodextrin and surfactant micelles, 1511
Spectral–spatial electron paramagnetic resonance
Spectral–spatial electron paramagnetic resonance imaging of electrochemically generated radicals, 3181
Spectrophotometry
Calorimetric and spectrophotometric studies of complexation of manganese(II), cobalt(II) and nickel(II) with bromide ions in *N*,*N*-dimethylformamide, 271
Formation of chloro complexes of manganese(II), cobalt(II), nickel(II) and zinc(II) in dimethyl sulphoxide, 2179
Dimerisation of dimethyl sulphoxide in dipolar aprotic solvents using *R*,*S*,*R*,*S*-1,4,8,11-tetramethyl-1,4,8,11-tetra-azacyclotetradecane-nickel(II) as a probe, 2937
Solvent effects on the iodide–peroxodisulphate reaction: a quantitative approach, 3731
Spin trap
Electron paramagnetic resonance study of spin-trapped free radicals in the hydrosilylation of septamethylvinyltrisiloxane using benzophenone as an initiator, 3221
Spirobenzopyran
Photochromism of a surface-active spirobenzopyran moiety in dioxane–water mixtures and self-assembled surfactant aggregates, 3613
Comparison of the photochromism of a spirobenzopyran derivative in unilamellar surfactant vesicles and solvent-cast surfactant films, 3913
Stability constant
Stability constants of hydrazoic acid–tributyl phosphate complexes in hexadecane solution, 3561
Stark effect
Double Stark effect in the theory of ion–dipole capture processes, 1
Static-selective photochemistry
State-selective photochemistry: the predissociation dynamics of jet-cooled dichlorofluoronitrosomethane (CCl_2FNO) in the 600 nm region, 2049
Static secondary-ion mass spectrometry
CO oxidation over small Pd particle model catalysts. A static secondary ion mass spectrometry study, 2749
Statistical mechanics
Simulation of adsorption of deformable particles modelled as cyclic lattice chains. A simple statistical model of protein adsorption, 805
Correlation functions in non-Newtonian couette flow. A group theory and molecular dynamics approach, 1041
Statistical thermodynamics
Point defects and their interaction with impurities in metals, 1203
Statistical thermodynamics of block copolymer adsorption. Part 2.—Effect of chain composition on the adsorbed amount and layer thickness, 1333
Steam–n-octane
Excess molar enthalpy of steam–n-octane up to 648.2 K and 10.0 MPa, 69
Stearic acid
Kinetics of fluorescence quenching of *n*(9-anthroyloxy) stearic acids by tertiary amines in non-ionic micelles of triton X-100, 2155
Stern layer
Effects of Stern-layer conductance on electrokinetic transport properties of colloidal particles, 2859
Sticky hard spheres
Bridging flocculation of sticky hard spheres, 439
Stoichiometry
A new kinetic approach for multi-route systems: A generalisation of the rate-determining step approximation, 789
Stokes–Einstein equation
Tracer diffusion coefficients of I^-, I_3^-, Fe^{2+} and Fe^{3+} at low temperatures, 3573
Stress–strain curve
Flow of ordered latex suspensions: yielding and catastrophic shear thinning, 2629
Strong metal–support interaction
Effects of strong metal–support interactions on hydrocarbon reactions over titania-supported platinum. Mode of action of a near-selective hydrogenolysis catalyst, 2789
Structure map
Structure maps in alloy design, 1209
Sublimation
Enthalpies and entropies of sublimation, vaporization and fusion of nine polyhydric alcohols, 75
Substituent effect
Molecular structure and smectic properties: the substituent effect on the smectic A phase in biphenyl ester systems, 3429
Substitution
Changes in the structure of ZSM-5 zeolites during boron and aluminium substitution, 753
Sulphate
Kinetics of the reactions of the SO_4 radical with SO_4, $S_2O_8^{2-}$, H_2O and Fe^{2+}, 2557
Sulphoxyl radical
Structure and reactivity of peroxyl and sulphoxyl radicals from measurement of oxygen-17 hyperfine couplings: relationships with Taft substituent parameters, 3279
Sulphuric acid
Thermodynamics of sulphuric acid: apparent and partial molar heat capacities and volumes of aqueous HSO_4^- from 10–55°C and calculation of the second dissociation constant to 350°C, 2831
Superacid
Influence of hydrogen chloride addition on the catalytic isomerization activity of chlorinated alumina and chlorinated platinum–alumina solids. Superacid behaviour, 567
Supercage
Location, ligancy and reducibility of metal ions in zeolite cages: Co and Pd in NaY, 2313
Superconductivity
A combined ESR/X-ray diffraction study of the Y_2O_3–BaO–CuO phase diagram, 675
ESR studies of high critical-temperature superconductors. Absorption at low magnetic fields, 683
X-Ray photoelectron spectroscopic study of the high-T_c superconductor $YBa_2Cu_3O_{7-x}$: evidence for Cu^{3+} and surface oxygen excess, 3129
Low-field microwave absorption in mechanical mixes of superconducting $YBa_2Cu_3O_{7-x}$ with Al_2O_3 and $BaPbO_3$, 3829
Supercritical fluid chromatography
Relationship between retention of a solid solute in liquid and supercritical fluid chromatography and its solubility in the mobile phase, 855
Superexcited states
Multiphoton ionization processes in HCl studied by photoelectron spectroscopy, 2035
Superionic conductor
Dynamics of defects in superionic fluorites, 1177
Supersaturated solution
The precipitation of cadmium sulphide in aqueous solutions, 973
Supersonic jet
S_1–S_0 electronic absorption and supersonic-jet fluorescence spectra of catecholborane: puckering potential for the five-membered ring, 3341
Non-reactive interaction of oxirane and hydrogen bromide: isolation of an oxirane–hydrogen bromide dimer in a supersonic jet and its characterisation by microwave spectroscopy, 3975
Supported catalyst
Infrared study of the adsorption of NO, NO_2 and CO on Rh/Al_2O_3 catalysts, 571
Combined deuterium nuclear magnetic resonance and mass-spectrometric studies of the exchange reactions of ketones over supported-metal catalysts, 747
Reactions of cyclopropane and deuterium over supported metal catalysts, 3815
Surface
Iterative solution in quantum scattering theory. The log derivative Kohn approach, 1641
Adsorption of carbon dioxide on polycrystalline copper, 1889
Surface chemistry of Rh carbonyls and nitrosyls on dealuminated Y-zeolite at low temperature, 2321
The contribution made by surface science to understanding reactivity in heterogeneous catalysis, 2675
Modifications of platinum model catalysts by sulphur: effect on reactions of labelled hexanes, 2719
CO oxidation over small Pd particle model catalysts. A static secondary ion mass spectrometry study, 2749

In situ infrared study of the surface oxidation of activated carbon dispersed in potassium bromide, 2997
Magnetic resonance measurements of solubilizate distribution coefficients and surface probabilities in some micelles, 3313
Fourier-transform infrared study of surface species on carbon mixed with KBr and reacted with CO_2, O_2 and CO, 3647
Effect of phosphate ions on the surface chemistry and microstructure of amorphous alumina, 3653
Surface structures of molybdenum oxide highly dispersed on ZrO_2 and oxidation of propan-2-ol, 3659
Surface hydroxyl groups
Estimation of the distribution of surface hydroxyl groups on silica gel, using chemical modification with trichlorosilane, 3751
Surface tension
Association and surface properties of block-copoly(oxyethylene/oxypropylene/oxyethylene) L64, 1569
Surfactant
Mixing of alkanes with surfactant monolayers at the air–water surface, 211
Cation–surfactant interactions in aqueous alkylphenoxypolyoxyethylene salt solutions. A Raman spectroscopic study, 1109
The use of ion-selective electrodes to determine the effective degree of micelle dissociation in tetradecylpyridinium bromide solutions, 1535
Dilute lamellar and L_3 phases in the binary water–$C_{12}E_5$ system, 2253
Photochemical electron transfer across surfactant bilayers mediated by 2,1,3-benzothiadiazole-4,7-dicarbonitrile, 2897
Effects of temperature on the partitioning and adsorption of $C_{12}E_5$ in heptane–water mixtures, 3111
Photochromism of a surface-active spirobenzopyran moiety in dioxane–water mixtures and self-assembled surfactant aggregates, 3613
Solubilisation of hydrocarbons in surfactant monolayers, 3623
Comparison of the photochromism of a spirobenzopyran derivative in unilamellar surfactant vesicles and solvent-cast surfactant films, 3913
Interactions of surfactant monolayers across hydrocarbon liquids, 4049
Suspension
Steady-state cluster size distribution in stirred suspensions, 2133
Monitoring aggregation of dilute suspensions in the intermediate regime using photon correlation spectroscopy, 3763
Synthesis (zeolite)
Synthesis of ZSM-20. Comparison of properties with zeolite Y, 1001
Synthetic apatite
Reaction characteristics of dental and synthetic apatites with Al^{3+} and La^{3+} ions in acidic solutions, 4025
Tacticity
Theoretical study of the dependence of the valence electronic levels on the tacticity and conformation of acrylonitrile model oligomers, 1025
Taft substituent parameter
Structure and reactivity of peroxyl and sulphoxyl radicals from measurement of oxygen-17 hyperfine couplings: relationships with Taft substituent parameters, 3279
Tannic acid
Thermal and photochemical production of hydrogen peroxide from dioxygen and tannic acid, gallic acid and other related compounds in aqueous solution, 2587
Target-gas effect
Collision target-gas effects during the tandem secondary-ion mass-spectrometric analysis of polymers, 1863
Tautomerism
AM1 study of tautomerism and intramolecular hydrogen bonding in thiomalondialdehyde and thioacetylacetone, 2813
Tellurocyanate
The far-ultraviolet solution spectroscopy of cyanide, cyanate, selenocyanate and tellurocyanate. The solution spectroscopy of the NCX series, 257
Temperature of maximum density
Temperature of maximum density behaviour of non-electrolytes in water, 911
Temperature polarization
Temperature polarization in non-isothermal mass transport through membranes, 2891
Temperature-programmed method
The role of sodium ions as adsorption sites in silicalite-1, 561
Location, ligancy and reducibility of metal ions in zeolite cages: Co and Pd in NaY, 2313
Structure and behaviour of $Ru_3(CO)_{12}$ supported on inorganic oxide surfaces, studied by EXAFS, infrared spectroscopy and temperature-programmed decomposition, 2645
Temperature-programmed reduction study of NiO–MgO interactions in magnesia-supported Ni catalysts and NiO–MgO physical mixture, 2663
Interaction of carbon dioxide with clean and oxidised Nd/Cu(100), 2711
Solid-state incorporation of Mn^{2+} ions in H-ZSM-5 zeolite, 3033
Template removal
Template removal from molecular sieves by low-temperature plasma calcination, 3967
Tetra-alkylammonium salts
Conductivity of tetra-alkylammonium salts in polyaromatic solvents, 1453
Tetradecylpyridinium bromide
The use of ion-selective electrodes to determine the effective degree of micelle dissociation in tetradecylpyridinium bromide solutions, 1535
Tetrahydrothiophen-3-one
Ring inversion in tetrahydrothiophen-3-one. A microwave study, 5
Tetramethylene sulphoxide
Investigation of the phase-transition behaviour in solid tetramethylene sulphoxide, 2617
Tetramethyltin
Fourier-transform infrared study of the oxidative thermolysis of tetramethyltin in the temperature range 533–613 K, 4059
Thallium
Thermodynamic stability and structure of Tl_2Br^+ in molten alkali-metal nitrate, 2187
Thermal decomposition
Kinetics and energy transfer in the thermal decomposition of 2-methyloxetane and 3-methyloxetane, 21
A kinetic and microscopic investigation of the thermal dehydration of lithium sulphate monohydrate, 531
Thermal decay of trapped radicals produced during the photopolymerization of diacrylates, 3273
Thermal desorption
Thermal desorption of ethanol from pentasil zeolites, 2337
Coadsorption of nitrogen with Cu, Ag and Au on W{100}: the role of metal adatoms in controlling surface reactivity, 2735
Thermal explosion
Thermal explosion: escape times in the uniform temperature approximation. Part 1.—Effects of parameters perturbations, 597
Thermodynamics
Thermodynamic properties of electrolyte solutions. EMF study of the system NaCl–Na_2–SO_4–H_2O at 25, 35 and 45°C, 81
Solution thermodynamics of lanthanide(III) cations (La^{3+}, Pr^{3+} and Nd^{3+}) and cryptands in propylene carbonate and in acetonitrile, 89
An inverse Kirkwood–Buff treatment of the thermodynamic properties of DMSO–water mixtures and cyanomethane–water binary liquid mixtures at 298.2 K, 277
Relationship between solvatochromic solvent polarity and various thermodynamic and kinetic data in mixed solvent systems, 287
Comments on the competitive preferential solvation theory, 307
Influence of pressure and temperature on microemulsion stability, 511
Bulk and surface thermodynamics of stoichiometric ionic crystals consisting of three ionic species, 631
Application of scaled particle theory to the salting out of single hydrophobic ions, 931
The cluster theory for electrolyte solutions. Its extension and its limitations, 1051
Enthalpies and entropies of solution of electrolytes containing 4-hydroxyphenylazobenzoate and chloro-4-hydroxyphenylazobenzoate anions in water and in methanol. Derived single-ion values for the transfer of these anions from water to methanol, 1067
Thermodynamics of gallium(III) and indium(III) monoazide complexes in dimethyl sulphoxide solutions, 1467
Thermodynamic studies on the structure of iso-dielectric binary mixtures of methanol with ethylene glycol, acetonitrile, nitrobenzene and nitromethane, 1477
How wrong is the Debye–Hückel approximation for dilute primitive model electrolytes with moderate Bjerrum parameter?, 1815
Formation of chloro complexes of manganese(II), cobalt(II), nickel(II) and zinc(II) in dimethyl sulphoxide, 2179
Thermodynamic stability and structure of Tl_2Br^+ in molten alkali-metal nitrate, 2187
Solution thermodynamics of haptens containing 4-hydroxyphenylazobenzoate and substituted 4-hydroxyphenylazobenzoate anions in *N*,*N*-dimethylformamide, 2193
Thermodynamics of molecular interactions in ethyl iodide–xylene mixtures, 2203
Excess molar Gibbs energies of mixing of water and 1,1,1,3,3,3-hexafluoropropan-2-ol mixtures at 298.15 K, 2209
Preferential solvation in mixed solvents. Part 5.—Binary mixtures of water and organic solvents, 2215
Volume and entropy changes of water in electrolyte solutions below 0 °C, 2231
Thermodynamics of sulphuric acid: apparent and partial molar heat capacities and volumes of aqueous HSO_4^- from 10–55°C and calculation of the second dissociation constant to 350°C, 2831
Thermodynamics of complex formation in dimethyl sulphoxide. Silver(I) with quadridentate polyamines, 2841
Thermodynamic properties of ternary non-electrolyte solutions. Part 3.—Excess molar volumes of 2-propanone–tribromomethane–alkane mixtures, 2853
Enthalpies of interaction of some *N*-acetyl amino acid amides in aqueous urea solutions at 298.15 K, 2943
Thermodynamics of transfer of electrolytes and ions from water to aqueous solutions of polyhydroxy compounds, 3107
Thermodynamic properties of peptide solutions. Part 6.—The amino acid side-chain contributions to the partial molar volumes and heat capacities of some tripeptides in aqueous solution, 3117
Thermodynamic consistency in the symmetric Poisson–Boltzmann equation for primitive model electrolytes, 3383
Ionic enthalpies of transfer in acetonitrile–water mixtures, 3391
Interactions between metal cations and the ionophore lasalocid. Part 8.—Enthalpies and entropies of formation of 1 : 1 and 2 : 1 complexes of lasalocid anion and salicylate with some divalent transition-metal cations in methanol, 3395
Enthalpies of interaction of some *N*-acetyl amino acid amides dissolved in *N*-methylformamide at 298.15 K, 3737
Thermogravimetric analysis
The synthesis of SAPO-34 and CoSAPO-34 from a triethylamine–hydrofluoric acid–water system, 425
Adsorption complexes of methanol on zeolite ZSM-5, 3039
Thermolysis
Fourier-transform infrared study of the oxidative thermolysis of tetramethyltin in the temperature range 533–613 K, 4059
Thioacetylacetone
AM1 study of tautomerism and intramolecular

hydrogen bonding in thiomalondialdehyde and thioacetylacetone, 2813
Thiomalondialdehyde
AM1 study of tautomerism and intramolecular hydrogen bonding in thiomalondialdehyde and thioacetylacetone, 2813
Thiourea
Structural aspects of the chlorocyclohexane/thiourea inclusion system, 1095
Three-body Coulomb system
The ground-state energies of three-body Coulomb systems calculated by the short-time Green function Monte Carlo method, 43
Three-body problem
Representation in hyperspherical and related coordinates of the potential-energy surface for triatomic reactions, 1681
Three-electron σ-bonded radicals
Three-electron σ-bonded radicals: an electron paramagnetic resonance spectroscopic study of $R_3P^{+\cdot}Cl$ radicals in freon, 3293
Tight binding
Tight-binding study of the adsorption of hydrogen on Pt, Au and Pt–Au (111) surfaces, 3793
Time-independent method
A new accurate (time-independent) method for treating reactive collisions: conversion of a scattering problem into a bound problem, 1721
Time-of-flight mass spectrometry
Weak interaction in benzene clusters, 2511
Time-resolved optical absorption spectroscopy
Twisted non-charge-transfer electronically excited triplet states of aromatic aldehydes and ketones revealed by resonance Raman scattering and transient dielectric loss/interconversion between two populated triplet states, 2083
Titania
Titania-supported iron–ruthenium and iron–indium catalysts. An *in situ* iron-57 Mössbauer spectroscopic study of the effects of pretreatment in hydrogen, 165
Study of peroxide-modified titanium dioxide (anatase), 385
Studies on the V_2O_5–TiO_2 system. Part 1.—TiO_2(rutile)–V_2O_5, 715
Studies on the V_2O_5–TiO_2 system. Part 2.—TiO_2(anatase)–V_2O_5, 723
Studies on the V_2O_5–TiO_2 system. Part 3.—Monolayers of V_2O_5, 731
Effect of oxidation–reduction treatments on the infrared spectra of carbon monoxide chemisorbed on a Ru/TiO_2 catalyst, 979
Pulsed photoelectrochemistry of titanium dioxide, 1527
Effects of strong metal–support interactions on hydrocarbon reactions over titania-supported platinum. Mode of action of a near-selective hydrogenolysis catalyst, 2789
Effect of temperature on the point of zero charge and surface charge of TiO_2, 3437
Titanylacetylacetonate
Modified chromium/silica gel catalysts: impregnation of the silica gel with titanylacetylacetonate and comparison with chromium on SiO_2 and TiO_2, 2783
Topology
A theoretical and topological study on the electroreduction of chlorobenzene derivatives, 329
Structural and topological consequences of anisotropic interactions in clusters, 3505
Torsional potentials
Methyl and vinyl torsional potential functions in 4-methylstyrene from supersonic jet fluorescence spectroscopy, 217
Toxic ions
Synthetic carbonate apatites as inorganic cation exchangers. Exchange characteristics for toxic ions, 2303
Tracer
Comparison of nuclear magnetic resonance tracer exchange and molecular uptake of benzene on pentasils, 881
Tracer diffusion techniques, 1151
Tracer diffusion coefficients of I^-, I_3^-, Fe^{2+} and Fe^{3+} at low temperatures, 3573
Transdermal diffusion
Transdermal diffusion of drug molecules, 1317
Transdermal diffusion of drug molecules, 1317
Transfer property
Use of convolution voltammetry for the determination of single ionic Gibbs energies of transfer, 819
Transformation
Transformations of n-hexane over EUROPT-1: fragments and C_6 products on fresh and partially deactivated catalyst, 3159
Transient optical dichroism
Transient optical dichroism in a photochromic polymer glass and its relationship to molecular reorientation, 1013
Transition-metal cluster
Hydrogen chemisorption on gas-phase transition-metal clusters, 2459
Transition probability
Quantum diffusion in solids, 1215
Transition-state
Canonical variational transition-state comparative study for $M^+ (= Li^+, Na^+$ and $K^+) + H_2O \rightarrow [M \cdot (H_2O)]^+$ association reactions, 241
Preferred transition-state geometry in the reaction of fluorine atoms with iodomethane molecules, 2059
Structures, energies and harmonic vibrational frequencies for the reactions of NH with NO and NO_2, 3519
***trans*-Oxalyl fluoride**
Rotational contour analysis of the 0_0^0 band of the $\tilde{A}\,^1A_u$–$\tilde{X}\,^1A_g$ electronic transition of *trans*-oxalyl fluoride, 2015
Transport
Bulk and surface thermodynamics of stoichiometric ionic crystals consisting of three ionic species, 631
Trichlorosilane
Estimation of the distribution of surface hydroxyl groups on silica gel, using chemical modification with trichlorosilane, 3751
Trifluoropropyne
Eigenstate-resolved ν_1 spectrum of CF_3CCH: anharmonic couplings to the bath, 2071
Trimethylphosphine
Rotational spectrum of $(CH_3)_3P \cdots HCl$ and a comparison of properties within the series of axially symmetric dimers $R_3Y \cdots HCl$, where Y = N or P and R = H or CH_3, 1915
TRIPLE
Electron paramagnetic resonance, ENDOR and TRIPLE resonance of some 9,10-anthraquinone radicals in solution. Part 3.—Hydroxyanthraquinones, 2569
Electron paramagnetic resonance, ENDOR and TRIPLE resonance of some 9,10-anthraquinol radicals in solution. Part 4.—Anthraquinolsulphonates, 3257
Triple-quadrupole mass spectrometry
Metastable, collision-induced and laser-induced decomposition of $Ar_mN_{2n}^+$ ($m = 0, 1$) cluster ions in the gas phase, 2427
Triplet state
Twisted non-charge-transfer electronically excited triplet states of aromatic aldehydes and ketones revealed by resonance Raman scattering and transient dielectric loss/interconversion between two populated triplet states, 2083
Tritium
Release of tritium from boron carbide, 651
Homogeneous and heterogeneous metal-catalysed hydrogen isotope exchange of nitrobenzene with tritium gas and tritiated water, 875
Trivalent cation
Reaction characteristics of dental and synthetic apatites with Al^{3+} and La^{3+} ions in acidic solutions, 4025
Tungsten
Coadsorption of nitrogen with Cu, Ag and Au on W{100}: the role of metal adatoms in controlling surface reactivity, 2735
Twisted intramolecular charge-transfer state
Dual luminiscence of dimethylaminobenzonitrile in γ-cyclodextrin. Environmental effects on twisted intramolecular charge-transfer phenomenon, 53
Two-dimensional electron paramagnetic resonance
The Bruker Lecture. Modern techniques in electron paramagnetic resonance spectroscopy, 3173
Two-photon photoselection
Two-photon photoselection: an irreducible tensor analysis, 3051
Ultramicroporous carbon
Study of ultramicroporous carbons by high-pressure sorption. Part 5.—CH_4 isotherm and diffusion kinetics, 2267
Ultrasound
Preliminary observations on high-resolution nuclear magnetic resonance for liquids subjected to ultrasound, 215
Ultrasonic absorption properties and Kirkwood–Buff integral functions for hydrogen peroxide–water and propanone–water mixtures at 298.2 K, 283
Ultrasonic and dielectric behaviour of binary systems of methyl ethyl ketone with 1,2-dichloroethane, methylene chloride, trichloroethene, tetrachloroethene and cyclohexane, 645
Ultrasonic monitoring of crystallization in an oil-in-water emulsion, 1147
Dielectric, ultrasonic and carbon-13 nuclear magnetic resonance relaxation measurements of t-butyl alcohol–water mixtures, 1493
Ultrasonic and electrochemical studies of the interactions of the drug chlorocyclizine hydrochloride with α-cyclodextrin and surfactant micelles, 1511
Ultrasonic, dielectric and viscometric behaviour of binary systems of 1,4-dioxane with 1,2-dichloroethane, methylene chloride, trichloroethene, tetrachloroethene and cyclohexane, 3399
Ultrathin film
Physicochemical properties of a novel nitrogen-containing plasma-deposited ultrathin film, 2971
Effects and role of basic nitrogen-derived ultrathin films on 'plasma-reduction', 2975
Ultraviolet irradiation
Adsorption of methane on magnesium oxide surfaces under ultraviolet irradiation, 4071
Ultraviolet photodissociation
Ultraviolet photodissociation of Ar_2^+ and Ar_3^+, 2069
Ultraviolet photoelectron spectroscopy
Adsorption of oxygen on potassium- and barium-dosed Au surfaces: X-ray photoelectron and ultraviolet photoelectron spectroscopy studies, 1893
Vacuum ultraviolet photoelectron spectroscopic study of the NH_2O and HNO molecules, 3843
Uranium
Deactivation mechanism of excited uranium(VI) complexes in aqueous solutions, 55
Diffusion of Xe in UO_2, 1257
Direct nuclear magnetic resonance observations of excited uranyl ions, 1621
Surface behaviour of uranium dioxide after immersion in mineral water studied by X-Ray photoelectron spectroscopy, 2641
External surface adsorption of uranyl–hydroxo complexes on zeolite particles in relation to the double-layer potential, 4095
Urea
Dielectric properties of urea and acetamide in aqueous solution, 321
Partial molar heat capacities and volumes of some nucleic acid bases, nucleosides and nucleotides in aqueous urea solutions at 298.15 K, 905
Enthalpies of interaction of some *N*-acetyl amino acid amides in aqueous urea solutions at 298.15 K, 2943
Structural aspects of urea inclusion compounds and their investigation by X-ray diffraction: a general discussion, 2985
Powder X-ray diffraction studies of a low-temperature phase transition in the n-hexadecane/urea inclusion compound, 3135
UV-VIS
Acid–base behaviour of 4-nitrophenol and 4-nitrophenyl-2-sulphonate in water-in-oil microemulsions stabilized by aerosol-OT, 833
Study of preferential solvation in mixed binary solvents by ultraviolet–visible spectroscopy, 1785

Location, ligancy and reducibility of metal ions in zeolite cages: Co and Pd in NaY, 2313
Study of the absorption spectra of pyrene complexed to paraquat in pentanol–sodium dodecylsulphate micelles, 2955
Mechanisms of methylene blue electrode processes studied by *in situ* electron paramagnetic resonance and ultraviolet–visible spectroelectrochemistry, 3125

Vacancy
Point defects and their interaction with impurities in metals, 1203
Structural and energetic aspects of defects in high-T_c oxides from atomistic lattice simulations, 1227

Vacuum-ultraviolet absorption spectrum
Vacuum-ultraviolet absorption spectrum of acetaldehyde, CH_3CHO, and the related deuterides CH_3CDO and CD_3CDO, 3349

Vanadia
Studies on the V_2O_5–TiO_2 system. Part 1.—TiO_2(rutile)–V_2O_5, 715
Studies on the V_2O_5–TiO_2 system. Part 2.—TiO_2(anatase)–V_2O_5, 723
Studies on the V_2O_5–TiO_2 system. Part 3.—Monolayers of V_2O_5, 731
Ionic hydration number in V_2O_5 intercalated xerogels $M_x(H_2O)_yV_2O_5$, 2623

Vanadium
Generation of paramagnetic vanadium species in ZSM-5 and investigation of their interaction with framework aluminium nuclei by electron spin resonance and electron spin echo modulation, 189

Vanadomolybdophosphoric acid
Active form of 12-vanadomolybdophosphoric acids in n-butane selective oxidation, 2775

van der Waals interaction
High-resolution infrared spectroscopy of the $CO \cdot CO_2$ van der Waals molecule, 1943
Magic numbers in mass spectra of large van der Waals clusters, 2411
Experimental study of the transition from van der Waals, over covalent to metallic bonding in mercury clusters, 2473
Weak interaction in benzene clusters, 2511

Vaporization
Enthalpies and entropies of sublimation, vaporization and fusion of nine polyhydric alcohols, 75

Vapour deposition
Unexpectedly stable nitrogen, oxygen, carbon monoxide and argon clathrate hydrates from vapour-deposited amorphous solid water: an X-ray and two-step differential scanning calorimetry study, 3785

Vapour pressure
Solubilities and vapour pressures in the quinquinary system NaCl–KCl–$MgCl_2$–$CaCl_2$–H_2O. Part 2.—Predictions and measurements at 30–45°C, 495

Variational theory
Variational approach to the electrostatic free energy in charged colloidal suspensions: general theory for open systems, 3901

Vesicle
Comparison of the photochromism of a spirobenzopyran derivative in unilamellar surfactant vesicles and solvent-cast surfactant films, 3913

Vibrational state
Resonance-enhanced multiphoton ionisation of vibrational state selected NH_3 molecules: a reinvestigation, 2921

Ro-vibrational states
Discrete variable representations of large-amplitude ro-vibrational states in a generalised coordinate system, 1963

Ro-vibrational states
Relativistic corrections for the ground and first excited states of H_2^+, HD^+ and D_2^+, 3495

Vibration–vibration energy transfer
Vibration–vibration energy transfer from $H_2(v = 1)$ and $D_2(v = 1)$ to selected diatomic and polyatomic hydrides and deuterides, 3983

Viologen
Photoinduced electron transfer in viologen-linked porphyrins (p-PC_nV), 811
Determination of the one-electron reduction potential of electron-affinic compounds intercalated into DNA, 3971

Viscoelasticity
Viscoelastic and nuclear magnetic resonance studies on molecular mobility of carboxymethylcellulose–calcium complex in concentrated aqueous systems, 829

Viscosity
Density measurement by oscillating tube. Effects of viscosity, temperature, calibration and signal processing, 145
Longitudinal acoustic relaxation of highly viscous liquids around room temperature, 917
Influence of viscosity and dielectric relaxation on the intramolecular adiabatic proton transfer in the electronically excited free base of quinacrine, 3717

Voltammogram
Application of scaled particle theory to the salting out of single hydrophobic ions, 931

Volterra integral equation
Volterra integral equations for the determination of diffusion coefficients in fast pressure-jump sorption kinetics experiments, 3087

Volume change
Volume and entropy changes of water in electrolyte solutions below 0 °C, 2231

Volumetric property
Volumetric properties of aqueous solutions of alcohols and diols at 25°C, 3891

Water
Hydrogen isotope effects in the absorption of water by perfluorosulphonate (Nafion-117) and polystyrene divinylbenzene sulphonate (Dowex 50W) ion-exchange resins, 409
Raman spectra of concentrated solutions of magnesium and aluminium chloride in water and deuterium oxide, 471
Ionic solvation in water–co-solvent mixtures. Part 21.—Free energies of transfer of single ions from water into water–2-ethoxyethanol mixtures, 1471
Kinetics of the solvolysis of chloropentacyanocobaltate(III) ions in water and in water–methanol mixtures, 1791
Volume and entropy changes of water in electrolyte solutions below 0 °C, 2231
A theoretical study of the infrared absorption spectra of large water clusters, 2357
TiO_2 corrosion during water photocleavage using Rh/TiO_2 suspensions, 3441

Water-gas shift reaction
Kinetics and mechanism of the water-gas shift reaction catalysed by the clean and Cs-promoted Cu(110) surface: a comparison with Cu(111), 2725

Xanthene
Limiting fluorescence anisotropies of perylene and xanthene derivatives, 2103

Xenon
Adsorption of xenon on silica gel. Part 1.—Thermophysical properties of the adsorbate, 171
Adsorption of xenon on silica gel. Part 2.—Hysteresis and capillary phase transitions, 175
Diffusion of Xe in UO_2, 1257

Xerogel
Ionic hydration number in V_2O_5 intercalated xerogels $M_x(H_2O)_yV_2O_5$, 2623

X-Ray diffraction
Crystal and electronic structures of new molecular conductors tetramethylammonium and tetramethylarsonium complexes of $Pd(dmit)_2$, 361
A combined ESR/X-ray diffraction study of the Y_2O_3–BaO–CuO phase diagram, 675
Electron spin resonance and X-ray diffraction studies of copper(II)-ion-doped Zr_4-pillared montmorillonite clay, 691
Oxidation and crystallization behaviour of amorphous $Ni_{64}Zr_{36}$ alloy, 843
Structural aspects of the chlorocyclohexane/thiourea inclusion system, 1095
Synthesis and properties of the silicoaluminophosphate molecular sieve SAPO-31, 2307
Kinetics and mechanism of the cation-ordering transformation in Li_2TiO_3–Li_3NbO_4 solid solutions, 2979
Structural aspects of urea inclusion compounds and their investigation by X-ray diffraction: a general discussion, 2985
Powder X-ray diffraction studies of a low-temperature phase transition in the n-hexadecane/urea inclusion compound, 3135

X-Ray emission spectroscopy
Chemical effects in the X-ray emission (F K_α) and X-ray photoelectron spectra of alkali-metal and alkaline-earth-metal fluorides, 247

X-Ray photoelectron spectroscopy
Chemical effects in the X-ray emission (F K_α) and X-ray photoelectron spectra of alkali-metal and alkaline-earth-metal fluorides, 247
Adsorptive interactions of glucose and carbon dioxide with basic sites over alumina, 1885
Adsorption of oxygen on potassium- and barium-dosed Au surfaces: X-ray photoelectron and ultraviolet photoelectron spectroscopy studies, 1893
Surface behaviour of uranium dioxide after immersion in mineral water studied by X-Ray photoelectron spectroscopy, 2641
Role of oxygen transients in the chemistry of dioxygen at atomically clean metal surfaces: the Zn(001)–dioxygen–ammonia system, 2701
Interaction of carbon dioxide with clean and oxidised Nd/Cu(100), 2711
X-Ray photoelectron spectroscopic study of the high-T_c superconductor $YBa_2Cu_3O_{7-x}$: evidence for Cu^{3+} and surface oxygen excess, 3129
Analytical X-ray photoelectron spectroscopic investigation of the modification of polybithiophene (pbT) under electrochemical cycling, 3769
Acid sites in dehydroxylated Y zeolites: an X-ray photoelectron and infrared spectroscopic study using pyridine as a probe molecule, 3949

Yeast
Electron paramagnetic resonance study of retention of chromium(III), chromate or dichromate(VI) and copper(II) ions by thermotolerant *Hansenula polymorpha*, 2579

Zeolite
Dealumination of Zeolites with silicon tetrachloride vapour. Part 6.—Zeolites Li, NaX and Li, NaY, 199
The adsorption of ethanal by some type A zeolites. A Fourier-transform infrared study, 205
^1H nuclear magnetic resonance studies of complexes formed by adsorption of ammonia on nickel-Y type zeolite, 413
Promotion effect of Fe on the selectivity of Pd zeolite-X in methanol synthesis, 419
The synthesis of SAPO-34 and CoSAPO-34 from a triethylamine–hydrofluoric acid–water system, 425
Adsorption of benzene and ethylbenzene on the acidic and basic sites of beta-zeolite, 431
Influence of pore confinement on the catalytic dehydration of isobutyl alcohol on H-ZSM-5, 581
NH_4-exchange: a sensitive method for the characterization of structurally modified zeolites, 585
Changes in the structure of ZSM-5 zeolites during boron and aluminium substitution, 753
Modification of zeolite Y using phosphorus pentachloride, 757
Comparison of nuclear magnetic resonance tracer exchange and molecular uptake of benzene on pentasils, 881
Extended X-ray absorption fine structure and ^{129}Xe nuclear magnetic resonance evidence for highly dispersed molybdenum clusters in zeolite Y, 1015
Porous crystal membranes, 1123
Occurrence and removal of hydroxide precipitates on ion-exchanged faujasite-type zeolites: zinc molecular sieves, 1899
Determination by neutron spectroscopy of the external frequencies of a CH_4 molecule adsorbed in an NaA zeolite cavity, 1905
Location, ligancy and reducibility of metal ions in zeolite cages: Co and Pd in NaY, 2313
Surface chemistry of Rh carbonyls and nitrosyls on dealuminated Y-zeolite at low temperature, 2321

Coadsorption and interaction of nitric oxide and carbon monoxide on Rh supported on highly dealuminated Y zeolite. Formation of mixed Rh carbonyl–nitrosyls on the surface, 2329
Thermal desorption of ethanol from pentasil zeolites, 2337
High–low displacive transition in the all-silica form of the $AlPO_4$-5 topology, 2341
Conversion of 2-methylfuran to 2-methylthiophene over alkaline X- and Y-zeolites, 2795
Solid-state incorporation of Mn^{2+} ions in H-ZSM-5 zeolite, 3033
Adsorption complexes of methanol on zeolite ZSM-5, 3039
Study of lanthanum ion-exchanged zeolite NaY by solid-state nuclear magnetic resonance spectroscopy, 3167
High-voltage electron paramagnetic resonance study of some electro-rheological fluids, 3309
Calculations on electrostatic properties of HY zeolite, 3461
Direct hydrothermal conversion of cubic P zeolite to organozeolite SSZ-13, 3467
Mechanistic studies of the catalytic dehydration of isobutyl alcohol on NaH-ZSM-5, 3473
Fourier-transform infrared spectroscopic measurement of salt imbibition by zeolites, 3683
Frequency-response measurements of diffusion of xenon in silicalite-1, 3687
Diffusion of C_4 hydrocarbons in silicalite-1, 3943
Acid sites in dehydroxylated Y zeolites: an X-ray photoelectron and infrared spectroscopic study using pyridine as a probe molecule, 3949
Limitations of resolution in the ^1H magic-angle-spinning nuclear magnetic resonance spectroscopy of zeolites, 3957
Adsorption of benzene on a range of activated Y zeolites, 3961
Template removal from molecular sieves by low-temperature plasma calcination, 3967
External surface adsorption of uranyl–hydroxo complexes on zeolite particles in relation to the double-layer potential, 4095

Zinc

Formation of rod-like zinc oxide microcrystals in homogeneous solutions, 959
A Fourier-transform spectral-ratioed reinvestigation of the infrared spectra from H_2 and D_2 absorbed on ZnO at room temperature and at 160 °C, 1615
Occurrence and removal of hydroxide precipitates on ion-exchanged faujasite-type zeolites: zinc molecular sieves, 1899
The role of copper and zinc oxide in methanol synthesis catalysts, 2683
Role of oxygen transients in the chemistry of dioxygen at atomically clean metal surfaces: the Zn(001)–dioxygen–ammonia system, 2701
Genesis of zinc–cobalt promoted hydrotreating catalysts: adsorption isotherms of Zn and/or Co on Al_2O_3, 2765

Zirconia

Infrared study of hydrogen adsorbed on ZrO_2, 397
Infrared studies of ethene hydrogenation over ZrO_2. Part 1.—Ethene adsorption, 3021
Surface structures of molybdenum oxide highly dispersed on ZrO_2 and oxidation of propan-2-ol, 3659
Infrared studies of ethene hydrogenation over ZrO_2. Part 2.—Ethane adsorption, 3665

Zirconium

Increase in yields of secondary ions by oxidation of zirconium at high temperatures and low oxygen pressures, 157
EXAFS study of thin-film zirconium oxide deposited on a TiO_2 surface, 467
Oxidation and crystallization behaviour of amorphous $Ni_{64}Zr_{36}$ alloy, 843
Infrared spectroscopic surface characterization of zirconium oxide. Part 3.—The CO/CO_2 and CO/H_2O interactions at the surface of a high-area monoclinic preparation, 3003

Cumulative Author Index 1990

Abbattista, F., 3653
Abbott, A. P., 1449, 1453
Abe, R., 55
Abu-Eittah, R., 293
Abu-Raqabah, A., 3293
Acree Jr, W. E., 307, 2197, 2853
Adams, P. A., 1797, 1803
Adnot, A., 3949
Agashe, M. S., 1781
Agirbas, H., 3303
Aguilar-Navarro, A., 2063
Ahluwalia, J. C., 905
Aïssi, C. F., 2775
Ajiboye, S. I., 65
Akhter, S., 2271
Akratopulu, K. Ch., 3437
Albalat, R., 1845
Albers, P., 3671
Alberti, A., 3207
Al-Bizreh, N., 69
Alfano, J. C., 2503
Allan, D. C., 1221
Allan, N. L., 1227
Allen, G. C., 867, 2641
Allen, J. M., 2921
Alonso, J. L., 5, 453, 459
Al-Sayyed, G., 3935
Alsdorf, E., 2307
Alves, A. C. P., 3341
Alves Marques, M., 471, 3883
Amin, S., 1899
Amos, R. D., 1931
Ananthaswamy, J., 81
Anastasi, C., 2553
Anderko, A., 2823
Anderson, J. A., 571, 3809
Anderson, M. W., 3039
Anderson, P., 3093
Anderson, R. A., 1425
Anderson, R. F., 3971
Anderson, R. W., 1681
Anderson, S. M., 4001
Andersson, S. L. T., 2783, 3153
Andini, S., 3567
Andre, J. C., 2145
Andreu, R., 937
Andrews, D. L., 3051
Ángyán, J. G., 3461
Aojula, K. S., 1851
Aquilanti, V., 1681
Araya, A., 1001
Archer, M. D., 763
Arena, F., 2663
Armstrong, R., 675, 683
Arnaud-Neu, F., 89
Arthur, N. L., 1407
Asakura, K., 1015, 2645, 2657
Ashcroft, S. J., 145
Ashfold, M. N. R., 213, 223, 2027, 2921
Ashwell, G. J., 1117
Ashworth, A., 4059
Ashworth, S. H., 1995
Aso Samper, E. J., 1873
Atherton, N. M., 3197
Atkinson, A., 1307
Attard, G. A., 2735
Attwood, D., 1569
Auerbach, S. M., 1701
Aveyard, R., 211, 441, 3111, 3623
Avila, D. V., 3243
Axon, S. A., 3679
Ayyoob, M., 1893
Azumi, T., 253
Badot, J-C., 2623
Baer, M., 1721
Baffier, N., 2623
Bagchi, S., 1785
Baggott, J. E., 27, 223
Bagley, J. A., 2109
Baiker, A., 843, 1131
Bailey, P., 3309
Baird, T., 2789
Baker, J., 3843
Bald, A., 2225
Balint-Kurti, G. G., 1741
Ball, R. G. J., 43, 1257
Bañares, L., 2063
Bando, K-K., 2645
Baños, I., 2979
Barelmann, I., 3233
Barnes, C., 2693
Bar-on, P., 1593
Barone, G., 75
Baros, F., 2145
Barrer, R. M., 545, 1123
Barthomeuf, D., 431, 1599, 3823
Bartle, K. D., 855
Barton Smith, D., 2441
Barwise, A. J., 137
Basosi, R., 2575
Bass, J. S., 3015
Basumallick, I. N., 3107
Bateman, J. B., 321, 3577
Battistuzzi Gavioli, G., 329
Bayley, J. M., 213
Becker, D., 3279
Beckett, M. A., 3725
Bednář, B., 1103
Beitia, F., 795
Belhekar, A. A., 1781
Bell, A. J., 3831
Bell, S. E. J., 4017
Bellobono, I. R., 3273
Benedetti, L., 329
Bengtsson, L., 351, 2187
Bénière, F., 1151
Bennett, J. E., 3247
Ben Taârit, Y., 757
Beran, the late S., 3033
Berardi, E., 2579
Béroes, T., 21
Berg, O. G., 763
Bergmann, T., 2489
Bernard, P-M., 567
Berry, F. J., 165
Berry, R. S., 2343
Bertrán, J., 241
Bethell, D., 663, 3603
Bhattacharyya, K., 53
Bhuiyan, L. B., 3383
Bigger, S. W., 619
Billing, G. D., 1663
Bing, Z., 3145
bin Hussein, M. Z., 2015
Binks, B. P., 3111
Blaisten-Barojas, E., 2351
Blanco, M. N., 2765
Blandamer, M. J., 277, 283, 1437, 2209
Blankenborg, S. G. J., 3737
Blum, J. K., 3233
Blundell, N. J., 277, 283
Blunt, J., 3829
Boggs, J. E., 2805
Bogyay, I., 419
Böhm, J., 2337
Boiziau, C., 1025
Bonardet, J-L., 413
Bond, G. C., 979, 2297, 4103
Bone, R. G. A., 1931
Bonnelle, J. P., 2775
Bonomo, R. P., 2579
Booker, D. R., 145
Booth, C., 1569
Borade, R. B., 3949
Boucher, The late E. A., 2263
Bouchy, M., 2145
Bovill, A. J., 4065
Bower, J. E., 2537
Bowker, M., 2693
Bowman, J. M., 1737
Brady, M. E., 1573
Bramble, S. K., 2009
Branca, M., 403
Bratt, P. J., 3313
Bréchignac, C., 2525
Bresgunov, A. Yu., 3185
Briend, M., 3823
Briggs, B., 1437
Briggs, D., 1863
Brint, P., 223, 3349
Brooke, F., 2145
Brown, D. R., 65
Brown, J. M., 1995
Brown, M. E., 525
Brown, N. M. D., 441
Brown, R., 3815
Bruce, J. M., 1483
Bruckenstein, S., 437
Brunner, E., 3957
Bryce, M. R., 1117
Brzezinski, B., 627, 1777
Buck, U., 1923
Buemi, G., 2813, 3713
Buffey, I. P., 2357
Bülow, M., 881, 1899, 3943
Bunce, J., 3919
Burch, R., 1607, 2683, 3151, 3803
Burdisso, M., 783
Burgess, J., 277, 283, 937, 1437, 2209, 3731
Burkhardt, I., 2321, 2329
Burnett, M. G., 1573
Burns, W. G., 1443
Busca, G., 989, 3653
Bush, D. A., 941
Butcher, V., 3843
Butt, J. B., 2911
Buttar, D., 220
Buxton, G. V., 1539
Byers Brown, W., 2357
Byrne, D. G., 1193
Cáceres, C. V., 2765
Cahuzac, Ph., 2525
Caldin, E. F., 1549
Callear, A. B., 1763
Camilleri, P., 2897
Campbell, C. T., 2725
Campbell, J. M., 2725
Candida, M., 3197
Canosa-Mas, C., 2109
Cao, C., 623
Carley, A. F., 2701, 3129, 3827
Carlier, F., 2525
Carmona, C., 3731
Caro, J., 3087, 3943
Carrington, A., 1957
Carturan, G., 739
Casalone, G., 3793
Cascella, C., 85, 3891
Cassol, A., 2841
Castano, F., 795
Castleman Jr, A. W., 2417
Castronuovo, G., 85, 3567
Catlow, C. R. A., 1167, 1183
Caubet, P., 887
Caucheteux, I., 1369
Cavagnat, R. M., 3883
Cavalli, S., 1681
Centi, G., 2775
Cervellati, R., 453, 459
Ceulemans, J., 3299
Chabanel, M., 3103
Chadwick, A. V., 1157, 1239
Chalker, S., 1607
Champagne, G. Y., 4037
Chan, D. Y. C., 3585
Changhai, Xu, 165
Chao, K-j., 3167
Chatterjee, J. P., 3107
Chatterjee, P., 1785
Chen, L-B., 2629
Chen, R., 623
Chen, S-h., 3167
Chen, Xinhua, 189
Chenier, J. H. B., 2169, 3321, 3329
Chern, J-y., 3167
Chesters, M. A., 2757, 3491
Cheval, M., 2719
Chiba, J., 2877
Choudary, B. M., 419
Choudhury, H., 3313
Chowdhury, P. B., 3313
Cichocki, A., 753
Clapp, P. A., 2587, 4101
Claret, J., 1845
Clark, E. N., 4059
Clark, S., 3111
Clarke, J. K. A., 2789
Clary, D. C., 1641
Cleaver, B., 123
Clifford, A. A., 855
Cocchi, M., 777, 783
Coddington, J. M., 1015
Cohen, R. D., 2133
Cohen De Lara, E., 1905
Cohen Stuart, M. A., 1355
Colburn, A. W., 2533
Cole-Hamilton, D. J., 2897
Coles, B. A., 663, 3603
Coluccia, S., 703
Comins, J. D., 1183
Compton, R. G., 129, 137, 335, 657, 663, 849, 1077, 1517, 2583, 2951, 3603
Connor, J. N. L., 1627, 1649, 3045
Conway, B. E., 923
Conway, S. J., 577
Cooney, A., 2209
Cooney, R. P., 1083, 1109
Cooper, I. A., 1763
Cooper, P., 211, 3623
Coq, B., 2297
Cordischi, D., 403
Corish, J., 1193, 1317, 2905
Corma, A., 1001
Corrigan, O. I., 1317
Corthouts, J., 603
Corti, H. R., 1051
Cosgrove, T., 1323, 1377
Costa, S. M. B., 2155, 4043
Costello, B. A., 3693
Costes, M., 887
Coughlan, B., 1007, 3961
Couves, J. W., 109, 115, 425
Cowles, H. J., 277, 283, 2209
Cox, A. P., 1981
Cox, D. M., 2459
Cox, P. A., 441
Craig, R. A., 619
Craven, R. J. B., 545
Cray, S. E., 3221
Creasey, J. C., 2021
Creegan, K. M., 2537
Creeth, A. M., 3573
Cruickshank, F. R., 223
Cullis, P. M., 591, 1437, 3267
Cunningham, J., 3935
Dalas, E., 973, 2967
Danil de Namor, A. F., 89, 501, 1067, 2193
D'Arrigo, G., 1503
Das, P. K., 507
Dash, A. C., 507
Datka, J., 753
David, D. E., 2427
Davies, A. G., 3243
Davies, H., 955
Davies, H. L., 2163
Dawber, J. G., 287, 3725
Dawnay, E. J. C., 1117
de Beer, E., 2035
Debnath, R., 1561
de Forest, L., 1549
de Frutos, M., 2525
Degli Esposti, A., 453, 459
De Hulsters, P., 585
De Jaegere, S., 603
De La Cruz, C., 2757
de Lange, C. A., 2035
Delhalle, J., 1025
Della Gatta, G., 75
Delmastro, A., 3653
Delmon, B., 715, 723, 731
Delpuech, J-J., 2847
de Mallmann, A., 431
Dempsey, R. J., 2789
Derrick, P. J., 763, 2533
Devaure, J., 3883
Diamond, D., 3045
Dias, A., 4011
Diaz, A., 2575
Di Bernardo, P., 2841
Dickinson, E., 439, 805, 1147
Didymus, J. M., 1873
Dikanov, S. A., 3201
Ding, J., 2243
Disselkamp, R., 2369
Dixon, R. N., 1741
Djafarov, S. F., 519
Doggett, G., 3045
Dogra, S. K., 2095
Doi, T., 3429
Dolan, A., 3491
Domen, K., 397, 3021, 3665
Domínguez, M., 937
Donaldson, D. J., 2043
Dong, S., 2243, 3125
Dorthe, G., 887
Douglas, P., 1417
Dreizler, H., 1981
Drew, J., 3853
Drew, M. G. B., 47, 697
Drummond, C. J., 3613, 3913
Du, N., 2587, 4101
Du, Y., 623
Dubinsky, A. A., 3185
Dunmur, D. A., 1113
Dussa, W., 3349
Dutkiewicz, M., 2237
Duxbury, G., 223
Dwyer, J., 1001
Dyer, A., 1899, 1909
Dyet, J. A., 2049
Dyke, J. M., 3843
Dzwigaj, S., 431
Easteal, A. J., 1109
Eastoe, J., 511, 2883
Eaton, G. R., 3181
Eaton, S. S., 3181
Echt, O., 2411
Eda, K., 1583
Edwards, P. P., 675, 683, 3829
Einfeldt, J., 489
Einicke, W-D., 2337
Ekelmans, G. B., 2083
Eklund, J. C., 2951
Elia, V., 85, 3567, 3891
Elimelech, M., 1623
El-Kourashy, A-G., 293
Elliot, A. J., 1539
Elliot, J. C., 3093
Emanuel, C., 3003
Emery, J. R., 1493
English, C. A., 1263

Enzo, S., 739
Eriksson, L. A., 3287
Espinós, J. P., 3441
Etemad, S., 3725
Etori, H., 1561
Euston, S. R., 805
Evans, D. F., 2587, 4101
Evans, G. F., 321
Evans, I. D., 3413
Evans, M. W., 1041
Evans, the late J. C., 3221
Evers, O. A., 1333
Ewing, G. E., 2369
Falconer, J. W., 577
Fasano, L., 3567
Fawcett, W. R., 4037
Fay, H. G., 2905
Feldman, H., 2469
Feliu, J. M., 1845
Ferber, N. M., 1619
Ferenczy, G. G., 3461
Ferino, I., 193, 2795
Fernández, A., 3441
Fernández-Prini, R., 1051
Ferro, D., 75
Fichtner-Schmittler, H., 1899
Fierro, J. L. G., 2765
Firpo, N., 2765
Firth, N. C., 2059
Fisher, A. C., 2951, 3603
Flack, K. W., 1239
Flanagan, T. B., 377
Fleer, G. J., 1333, 1355
Fletcher, P. D. I., 211, 3111, 3623
Flower, D. R., 1659
Fontanesi, C., 329
Ford, T. A., 3067
Fordham, P. J., 1569
Fornasiero, D., 2955
Fornes, V., 1001
Forni, L., 193, 2795
Förste, Chr., 881
Fowler, P. W., 1019, 1991, 2073
Fox, M. F., 257
Fraissard, J., 413
Freed, J. H., 3173
Freedman, R. B., 833
Freeman, R., 1909, 4103
Freer, R., 1281
Frey, H. M., 27
Frey, J. G., 3831
Fricke, R., 2307
Friesel, M., 1293
Frost, M. J., 1751, 1757
Frusteri, F., 2663
Fujita, M., 4031
Fukada, S-i., 3777
Fukuzumi, S., 3531
Fulka, C., 1389
Furlong, D. N., 3613, 3637, 3913
Furton, K. G., 3561
Gabriel, C., 321, 3577
Gade, R., 3707
Galán, M., 937
Galwey, A. K., 531, 1573
Gameson, I., 3135
Gandolfi, R., 783
Ganteför, G., 2483
Ganzerla, R., 739
Garbowski, E., 3027
Garcia-López, F., 2891
Gardner, P., 2757
Garin, F., 2719
Garley, M. S., 2163
Garnett, J. L., 875
Gast, A. P., 1341
Gauss, M., 2483
Gazdy, B., 1737
Gebbie, H. A., 2357
Gedeon, A., 413
Gee, M. L., 4049
Georgaklis, G., 3913
Gessner, F., 3551
Getoff, N., 311
Ghiggino, K. P., 3853
Ghoneim, N., 2079
Ghoussoub, D., 2775
Gilbert, B. C., 3261
Gill, D. S., 2847
Gillan, M. J., 1177
Gillet, E., 2749
Gillies, D. G., 3309, 3313
Gillis-D'Hamers, I., 3747, 3751
Gil Llambias, F. J., 2765
Gilson, D. F. R., 2617
Ginley, M., 1555
Giordano, N., 2663
Girault, H. H., 2249
Giró, A., 2139
Golde, M. F., 4001
Golding, P. D., 171, 175
Goller, M. I., 1147
Golubkova, N. A., 3545
Golunski, S. E., 2683, 3151
Gomes, J. A. N. F., 763
Gómez, E., 1845
González-Elipe, A. R., 3441
Gonzalez Ureña, A., 17, 1017, 2063
Goold, R. D., 1797, 1803
Goovaerts, F., 4095
Góralski, P., 3103
Goyal, S., 2361
Gozzelino, G., 3653
Grainger, A. M., 1117
Grant, E. H., 321, 3577
Grätzel, M., 3671
Gray, B. F., 597
Grech, E., 1777
Greenslade, D. J., 763
Grice, R., 2059
Grieser, F., 619, 2955, 3637
Griffiths, J., 4103
Griffiths, T. R., 1425
Griffiths, W. J., 2801
Grigo, M., 489
Grigor'ev, I. A., 3201
Grimes, R. W., 233, 1257
Gritzner, G., 823
Groeneweg, H., 3159
Grossi, G., 1681
Gu, X. J., 1923
Guczi, L., 419
Guelton, M., 2775
Guglielminotti, E., 979
Guidetti, R., 989
Guillaumont, R., 2641
Gulin, V. I., 3201
Guo, Q., 2693
Gutman, I., 3373
Gutschick, D., 2321, 2329
Guyan, P. M., 1483
Gyurova, L., 385
Haas, T., 1889
Haberland, H., 2473
Hadjiivanov, K., 385
Haenel, M. W., 311
Hahn, M. Y., 2375
Haines, J., 2617
Halawani, K. H. M., 1791
Hall, D. G., 631, 639, 1535
Hallbrucker, A., 3785
Halvick, P., 1705
Hamada, K., 4031
Hamann, C. H., 3233
Hamanoue, K., 93
Hamilton, P. A., 2009
Han, S., 2341
Hancock, D. U., 2553
Handy, N. C., 441, 1931
Harada, M., 55, 1621
Harakawa, T., 609
Harding, J. H., 1239
Harriman, A., 3927
Harris, F. M., 2801
Harris, K. D. M., 1095, 2985, 3135
Harris, R. K., 223
Harrison, J. A., 3519
Harrison, K., 1603
Harrison, M. R., 675, 683
Harrison, P. G., 4059
Hartree, W. S., 11, 17, 2027
Hasan, M., 1117
Hasegawa, K., 3537
Hashimoto, K., 561
Hashino, T., 157, 3797
Hashitani, R., 917
Hassan, K. H., 3341
Hassan, S. A., 995
Hatayama, F., 2291, 3659
Hattori, M., 3777
Hayan, E., 257
Hayashi, O., 2277
Hayes, D., 3637
Hayhurst, A. N., 763
Hayward, D., 1493
Heath, J. P., 3197
Hedwig, G. R., 3117
Hegde, M. S., 1893
Henderson, J. R., 1963, 4103
Hennico, G., 1025
Henriksson, U., 1555
Hepler, L. G., 2831
Herman, Z., 2395
Herrington, T. M., 671, 2961
Hervet, H., 1369
Hessabi, R., 247
Hester, R. E., 4017
Hey, M. J., 2673
Heyes, D. M., 1041
Heywood, B. R., 1873
Hibi, M., 917
Hickman, C. G., 3831
Hikmat, N. A., 995
Hill, J. N., 4017
Hillier, I. H., 1399, 3991
Hillman, A. R., 437
Hills, B. P., 481
Hindson, A. C., 3237
Hiraizumi, K., 609
Hironaka, T., 4077
Hobein, M., 1923
Hoffmann, R., 553, 4083
Hollas, J. M., 217, 2015, 3341
Holmberg, B., 351, 2187
Homer, J., 215
Hopkins, A. J., 2121, 2593, 3419
Hopkins, W. A., 47
Hopkirk, A., 2021
Horn, I. M., 277, 283, 2209
Horne, D. S., 1149
Hosono, H., 811
Hourston, D. J., 1909
House, W. A., 849, 1909, 3045
Hovey, J. K., 2831
Howard, B. J., 1943
Howard, J., 205
Howard, J. A., 219, 2169, 3321, 3329
Howe, R. F., 1015
Howells, B. D., 1949
Howells, M. H., 3495
Huber, M., 1087
Hudson, A., 3207
Huglin, M. B., 3045
Huizer, A. H., 2083, 3717
Hupfield, P., 3221
Husain, D., 795
Hussain, G., 1615
Hutchings, G. J., 1909
Hutson, J. M., 1649
Ibison, P., 3695
Iglesias, E., 4011
Ikeda, R., 3777
Ilett, S. M., 2673
Imamura, H., 3489
Indovina, V., 403
Inerowicz, H., 3391
Inoue, Y., 811, 2277, 2611
Irinyi, G., 3545
Ishiguro, S-i., 271, 2179
Ishii, T., 55
Ishikawa, M., 3531
Israelachvili, J. N., 4049
Ito, D., 829
Ito, T., 1139, 4071
Iwamoto, E., 2937
Iwasawa, Y., 1015, 2645, 2657
Iyer, R. M., 409
Jackson, R. A., 3229
Jacobs, P. W. M., 1197, 1233
Jafar, S. A., 855
Jalink, C. J., 3717
Jallabert, C., 2819
Janes, R., 675, 683, 2173, 3829
Jarrett-Sprague, S. A., 1399, 3991
Jarrold, M. F., 2537
Jarvis, R. D., 2059
Jemi-Alade, A. A., 3355
Jensen, J. B., 341
Jerome, R., 1369
Jobic, H., 3943
Jobson, E., 1131
Jobson, S., 165
Johansson, L. B-Å., 1555, 2103
Johansson, R., 2187
John, P., 1033
Johnson, B. R., 3701
Johnson, P., 3045
Johnston, R. L., 3045
Joly, H. A., 219, 2169, 3321, 3329
Jones, C. F., 947
Jones, P., 1013
Jones, R., 675, 683
Jones, W. J., 1013
Jose, C. I., 1781
Joyal, C. L. M., 2911
Joyner, R. W., 223, 2675
Juillard, J., 3395
Jutson, J. A., 867
Kacperska, A., 2225
Kaden, U., 3707
Kahn, R., 1905
Kaim, W., 3337
Kajihara, K., 377
Kakei, K., 371
Kaicher, J., 265
Kaldor, A., 2459
Kaliaguine, S., 3949
Kalra, K. C., 2203
Kamieńska-Piotrowicz, E., 3391
Kamiya, K., 2971
Kandler, O., 2411
Kaneko, K., 371
Kang, C. H., 1477
Kantcheva, M., 385
Karge, H. G., 3033
Kärger, J., 881
Kasztelan, S., 697
Kato, R., 361
Kato, T., 1383
Kaufman, the late F., 4001
Kaulgud, M. V., 911
Kavanagh, A. M., 965
Kawaguchi, M., 1383
Kawasaki, M., 4071
Keane, M. A., 1007, 3961
Keeble, D. J., 675, 683
Kella, D., 2469
Kelly, A. J., 2905
Kemball, C., 747, 3815
Kemp, T. J., 1909
Kendrick, J., 3995
Kennedy, R. A., 3495
Kessel, D., 3081
Kevan, L., 189, 691, 3015
Khan-Lodhi, A., 3757
Khudyakov, I. V., 3545
Kikumura, T., 377
Killmann, E., 1389
Kim, H., 361
Kim, I. T., 3693
Kim, T-H., 2267
King, D. A., 2735
Kirby, E. C., 447
Kirste, B., 3191
Kishore, N., 905
Kiwi, J., 3671
Klein, J., 1363
Klinkenberg, W., 2083
Klinowski, J., 199, 3039, 3679, 3967
Klissurski, D., 385
Knözinger, H., 389
Kobal, I., 2283
Kobayashi, A., 361
Kobayashi, H., 361, 561, 4071
Kočiřík, M., 1103, 3087
Koda, S., 917
Koenders, B. G., 2035
Koga, N., 531
Kojima, M., 757
Kojima, T., 55
Kondo, J., 397, 3021, 3665
Konrat, R., 265
Kontturi, A-K., 819, 931, 3097
Kontturi, K., 819, 931, 3097
Koopmans, M. P., 2035
Kordulis, Ch., 185, 711, 3437
Kordylewski, W., 3365
Koresh, J. E., 2267
Kornmeier, H., 2473
Koros, W. J., 2267
Kosche, I., 1899
Koumanakos, E., 973
Kouri, D. J., 1705
Koutsoukos, P. G., 973
Kouwenhoven, H. W., 3967
Krämer, R., 301, 627
Krebber, A. M. L., 3313
Kreuzer, H. J., 1299
Kroto, H. W., 2465
Kuczynski, A. P., 1117
Kukkadapu, R. K., 691
Kumamaru, T., 2937
Kumar, M. R., 899
Kumar, P., 2203
Kumar, S. P., 123
Kunitomo, M., 1583
Kurimura, Y., 609, 3537
Kurreck, H., 1087, 3191
Kusabayashi, S., 3429
Kuzmin, V. A., 3545
Kuzuya, M., 2971, 2975
Lahalle, M. P., 2641
Lambert, C., 3879
Lambert, C. R., 3075
Lambert, I. R., 2021
Lambert, R. M., 2711
Lamy, A., 3823
Lanceleur, P., 1493
Land, E. J., 3075
Lang, R., 627
Langman, S., 3267
Langosch, H., 2473
Laria, D., 1051
Larsson, S., 769
Latsios, H., 185
Lauenstein, Ch., 1923
Lázár, K., 419
Leaist, D. G., 3093, 3487
Lebedev, Ya. S., 3185
Lécayon, G., 1025
LeDuc, M., 3321
Lee, B-S., 1477
Lee, E. K. C., 3837
Lee, H. W., 1477
Lee, I., 1477
Lees, J. S., 3129
Lefebvre, F., 757
Légaré, P., 2719
Leggett, G. J., 1863
Le Goff, D., 3103
Legon, A. C., 1915, 3975
Lehmann, K. K., 2071
Leisner, T., 2411
Lena, V., 2775
Lenarda, M., 739
Lennon, D., 3491
Leonard, M. A., 441
Lercher, J. A., 3039
Lesclaux, R., 2927
Lethbridge, P. G., 2405
Levandier, D. J., 2361

Levine, R. D., 1669
Levy, D. H., 2503
Leyendekkers, J. V., 2231
Leygnier, J., 2525
Liang, J., 623
Lidin, S., 769
Lightfoot, P. D., 27, 2927
Lilley, T. H., 2943
Lim, T-K., 3897
Lindauer, the late G., 2719
Lindgren, M., 3377
Lindsay Smith, J. R., 4017
Lingam, K. V., 899
Lips, A., 2961, 3413
Lister, D. G., 453, 459
Little, M. R., 2109
Liu, H., 623
Liu, Y., 2243, 3125
Lluch, J. M., 241
Lodding, A., 1293
Logan, S. R., 61, 615
Long, M. A., 875
López, J. C., 5, 453, 459
López Agudo, A., 2765
Lorenzelli, V., 989, 3653
Loveday, D. C., 437
Lück, R., 3641
Luckham, P. F., 1363, 3693
Lund, A., 3377
Lunell, S., 3287
Lutz, H. O., 2483
Lutz, W., 1899
Luyckx, G., 3299
Lycourghiotis, A., 185, 711, 3437
Lyons, M. E. G., 2905
Mabuchi, M., 157, 3797
Maçanita, A. L., 4011
MacDónaill, D. A., 1193
Macdonald, J. N., 2805
Machej, T., 715, 723, 731
Machin, W. D., 171, 175
Maciejewski, M., 843
Mackrodt, W. C., 1227
Maclagan, R. G. A. R., 3519
Macpherson, A. N., 3081
Macral, R. M., 220
Maddox, P. J., 425
Maeda, K., 253
Maesen, T. L. M., 3967
Magalhães, J., 4011
Magnera, T. F., 2427
Mahdavi, S. M., 1287
Mahmood, S., 3253
Maire, G., 2719
Makarova, M. A., 581, 3473
Mäkelä, R., 2569, 3257
Maken, S., 2853
Malarski, Z., 1777
Malcolme-Lawes, D. J., 1909
Maldonado, A., 539
Malet, P., 3441
Malik, R., 2853
Malinowski, N., 2489
Malitesta, C., 3607, 3769
Malkin, E., 2469
Malmgren-Hansen, B., 341
Malmvik, A-C., 1555
Malysheva, L. V., 3473
Man, P. P., 1599
Mandák, T., 1103
Mangelsdorf, C. S., 2859
Mann, S., 1873
Manolopoulos, D. E., 1641
Manteghetti, A., 1579
Manz, J., 1689
March, N. H., 1203
Marchese, L., 703
Marchettini, N., 2575
Marcus, Y., 495, 2215
Margreiter, D., 2395
Marion, M. C., 3027
Märk, T. D., 2395
Markovitsi, D., 2819
Marquardt, F-H., 1067
Marshall, W. L., 1807
Marston, C. C., 1741
Márta, F., 21
Martin, K. J., 2209
Martin, T. P., 2489
Martínez, A., 1001
Martínez, M. M., 3383
Martínez, M. T., 1949
Martínez III, S. J., 2503
Maruya, K-i., 397, 3021, 3665
Masimov, E. A., 519
Mason, J., 4103
Masters, T. E., 2005
Matheis, W., 3337
Matolin, V., 2749
Matsuda, M., 1443
Matsumoto, T., 829, 2877
Matsumura, Y., 561
Matsuo, J., 2611
Matsuzaki, I., 3447
Matzke, H., 1243
Mayer, E., 3785
Mayhew, C. A., 3349
Mayrhofer, W., 823
Mazza, D., 3653
McCabe, T., 2905
McCash, E. M., 2757
McCaulley, J. A., 4001
McClements, D. J., 1147
McClymont, J. D., 591
McCombie, J., 2361
McConnell, A. A., 4065
McCoustra, M. R. S., 2049
McCracken, D. R., 1539
McDougall, G. S., 747
McElroy, W. J., 2557
McGarvey, D. J., 3075
McLean, A. J., 2671, 3075
McManus, J., 4059
McNab, I. R., 1957
McQuarrie, D. A., 3585
Meçik, M., 1467
Meiwes-Broer, K-H., 2483
Meldrum, B. J., 861, 1881, 2997, 3647
Melo, E. C. C., 2155
Meloni, M. G., 2579
Mengual, J. I., 2891
Merke, I., 1981
Merkin, J. H., 597
Michalik, M., 753
Michl, J., 2427
Micke, A., 3087
Midmore, B. R., 671, 2961, 3763
Miehle, W., 2411
Miessner, H., 2321, 2329
Mifsud, A., 959
Migita, C. T., 2565
Miheeva, L. M., 519
Miklazky, E., 2469
Mile, B., 219, 2169, 3321, 3329
Millar, G. J., 571
Miller, J. C., 2441
Miller, S., 1963
Miller, W. H., 1701
Mills, A., 955, 1417, 2163, 3405
Mills, I., 223
Millward, D., 1001
Milner, S. T., 1349
Mirth, G., 3039
Mishima, S., 3447
Mitchell, P. C. H., 47, 697
Mitsuishi, M., 4031
Mittal, J. P., 3861
Miyake, H., 3429
Miyake, M., 2303
Miyata, H., 2291, 3659
Miyoshi, H., 815
Mizutani, S., 2975
Möbius, K., 1087
Molero, M., 35
Monaci, R., 193, 2795
Monk, P. M. S., 2583, 3597
Moorman, M. B., 525
Morand, P., 3853
Morazzoni, F., 1587
Morcom, K. W., 2209
Morea, G., 3769
Morelli, R., 3273
Moreno, M., 241
Morgan, A. R., 3081
Morgan, S., 2417
Mori, H., 815
Morris, A., 3843
Morterra, C., 2321, 3003
Mortimer, M., 2673
Motheo, A. J., 4037
Mouche, E., 1905
Moyá, M. L., 937
Moyle, A. M., 4001
Mucalo, M. R., 1083
Muga, J. G., 1669
Mukherjee, T., 1483, 3861
Muller, C., 1845
Munch, M. R., 1341
Munro, I., 3081
Munuera, G., 3441
Münzel, H., 651
Murata, K., 361
Murphy, S. M., 1263
Murthy, N., 105
Murtomäki, L., 819, 931
Mwakibete, H., 1511
Naaman, R., 2043, 2469
Nag, A., 53
Nagasawa, H., 2303
Nagayama, Y., 2303
Nahor, G. S., 3927
Naito, S., 157, 3797
Nakai, S., 2971
Nakajima, T., 3447
Nakajo, T., 4077
Nakamura, D., 3777
Nakamura, J., 2725
Nakatani, J., 1885
Nakayama, M., 2565
Nakayama, T., 95
Nallet, F., 2253
Nandan, D., 409
Nasser, A., 1593
Nath, J., 645, 3399
Natraj, H. B., 3455
Naulin, C., 887
Neagle, W., 181
Neissendorfer, F., 2307
Neta, P., 3927
Neuhauser, D., 1721
Neumann, M. G., 3551
Ngoepe, P. E., 1183
Nicol, J. M., 205
Niedzielski, J., 1
Niethammer, D., 3191
Niinikoski, P., 3097
Nishio, E., 1561
Nix, R. M., 2711
Noda, S., 811
Noguchi, A., 2971, 2975
Nomura, H., 917
Northing, R. J., 335, 1077
Oates, G., 2673
Offer, A., 1659
Ogino, Y., 1885
Ogura, K., 2565
Ohno, T., 2291, 3659
Ohshima, K., 1561
Ohtaki, H., 2179
Okabayashi, H., 1561
Okubo, T., 151, 2871
Okura, I., 811
Oldfield, C., 833
Olech, A., 753
Oliva, C., 193, 2795, 3273
Oliveira, V. A., 3551
Olsson, U., 2253
O'Malley, P. J., 1001
Onishi, T., 397, 3021, 3665
Ono, T., 2291, 3659, 4077
Onwood, D., 233
Oreg, Y., 1721
Orio, L., 3003
Ortiz de Zárate, J. M., 2891
Osada, Y., 609
Oschwald, M., 2473
O'Toole, L., 3349
Ottaviani, M. F., 3211
Outhwaite, C. W., 35, 3383
Overill, R., 441
Ozawa, S., 1885
Ozeki, S., 371
Ozutsumi, K., 271
Paál, Z., 3159
Paál-Lukács, J., 3159
Packer, K. J., 3491
Padró, J. A., 2139
Pal, H., 3861
Palepu, R., 1535
Palit, D. K., 3861
Palmer, T. F., 1949
Palmieri, P., 453, 459
Papadopoulos, M. G., 3525
Pardon, P. R., 3831
Park, Y-y., 55, 1621
Parkyns, N. D., 223
Parmaliana, A., 2663
Parr, A. D., 2109
Parry, D. E., 2801
Pate, B. H., 2071, 2361
Patel, K. B., 3971
Patel, S. U., 215
Patwarthan, S. R., 3455
Paukshtis, E. A., 3473
Paul, A., 2095
Payne, M. C., 1221
Peasgood, S., 1147
Pei, S., 3145
Pelssers, E. G. M., 1355
Peltre, M. J., 1599, 3823
Perks, J. M., 1263
Persson, J. L., 2375
Pethrick, R. A., 441, 1493
Pettifor, D. G., 1209
Pfab, J., 2049
Pfeifer, H., 881
Philippaerts, J., 3747
Piacente, V., 75
Pickup, P. G., 3631
Pieri, I., 193, 2795
Pilkington, M. B. G., 663
Ping, G., 923
Piwowarska, Z., 753
Plato, M., 1087
Pletcher, D., 1851
Podmore, I. D., 3267
Pogni, R., 2575
Pointud, Y., 3395
Poluektov, O. G., 3185
Pomonis, P., 185, 711
Ponti, A., 3273
Popa, V. T., 789
Pope, C. G., 747, 3683
Portanova, R., 2841
Potzinger, P., 1407
Povey, M. J. W., 1147
Pradhan, J., 507
Predel, B., 3641
Prestidge, C. A., 1377
Price, M., 619
Price, T. J., 965
Primet, M., 567, 3027
Pritchard, H. O., 3171
Pritchard, J., 1889, 2743
Pritchard, K. L., 129
Procházka, K., 1103
Prusti, J., 507
Puchalska, D., 1467
Pudney, P., 2693, 2757
Purnell, J. H., 3561
Pushpa, K. K., 409
Pyper, N. C., 675
Queen, A., 1549
Quine, R. W., 3181
Radke, C. J., 3901
Rageb, S. M., 1239
Raineri, F. O., 1057
Ramsay, J. D. F., 3919
Ramsden, J. J., 1527
Randall, R. W., 1943
Randell, J., 1981
Rao, T. K. G., 899
Rashmi, , 3399
Rastelli, A., 777, 783
Ray, U., 2537
Rayment, T., 965
Reading, J. F., 3117
Rebenstorf, B., 2783, 3153
Recknagel, E., 2411
Reddy, N. K., 1569
Reed, N. M., 2749
Rees, L. V. C., 3687, 3943
Rego, C. A., 1915
Reichardt, C., 519
Reimann, B., 1407
Reiner, E. S., 3901
Reiner, M., 1389
Remy, M., 715, 723
Reschetilowski, W., 2337
Resina Rodrigues, J., 471, 3883
Rhodes, C. J., 3303
Richardson Jr, J. W., 2341
Richmond, P., 441
Richter, U-B., 311
Richter-Mendau, J., 2307
Rickert, L., 881
Ritt, M. C., 89
Roberts, M. W., 223, 763, 2701, 3129, 3827
Robinson, B. H., 511, 833, 2883, 3757
Robinson, J. N., 2897
Rochester, C. H., 181, 571, 577, 861, 1881, 2997, 3647, 3809
Rodehüser, L., 2847
Rodríguez, A., 3731
Roduner, E., 220
Romannikov, V. N., 581
Römelt, J., 1689
Rondelez, F., 1369
Rosseinsky, D. R., 2583, 3597
Rotunno, T., 3607
Roussel, P., 2927
Roux, D., 2253
Rowlands, C. C., 3221
Rozière, J., 1579
Rubinstein, I., 1857
Rudolph, A., 1923
Ruhland, T., 3557
Ruiz, P., 715, 723, 731
Rumbles, G., 3837
Russell, D. K., 441
Russell, T., 1417
Sabbatini, L., 3607, 3769
Sachs, H., 1033
Sachtler, W. M., 2313
Saini, R., 645
Sakai, Y., 55
Sakamoto, Y., 377
Sakata, Y., 397, 3489
Sakurai, Y., 3429
Salama, T. M., 467
Saleh, J. M., 995
Salomon, M., 501, 2193
Salvato, A. V., 2027
Sánchez, F., 937, 3731
Sanderson, N. P., 1873
Sandy, I. M., 1117
Sapers, S. P., 2043
Sarada, S., 81
Sarna, T., 3879
Sarpal, R. S., 2095
Sarpal, S. K., 1411, 3871
Sarre, P. J., 2005
Sarrett, M., 1845
Sartorio, R., 85, 3891
Sasaki, Y., 361
Sass, C. E., 189
Sato, K., 2277, 2611
Sawamura, K., 1071, 4025
Saxton, J., 1471
Scarano, D., 703
Schatz, G. C., 1729
Scheutjens, J. M. H. M., 1333
Schiatti, E., 777, 783
Schierhorn, E., 1899
Schiffrin, D. J., 819, 931, 1449, 1453
Schlag, E. W., 2511
Schmalzried, H., 1273
Schmelzer, N., 489
Schnarr, K., 651

Schöllner, R., 2337
Schomäcker, R., 2253
Schreier, E., 2307
Schriver, K. E., 2375
Schwartz, M., 593
Schwenke, D. W., 1705
Schwing-Weill, M. J., 89
Scoles, G., 2071, 2361
Scott, S. K., 3365, 3695, 3701
Scotti, R., 1587
Searle, T. M., 441
Segal, E., 789
Seibold, K., 3671
Seigneurin, A., 1579
Selli, E., 3273
Selzle, H. L., 2511
Senegačnik, M., 2283
Serna, C. J., 959
Sevilla, M. D., 3279
Shahid, G., 2757
Shawcross, D. R., 4017
Sheil, M. M., 2533
Shen, D., 3171, 3687, 3943
Sheppard, N., 763, 1615, 2757
Shigehara, K., 609
Shiotani, M., 3377
Shishan, S., 3145
Shohoji, B., 3197
Shoute, L. C. T., 3927
Shy, D-s., 3167
Siegel, H., 2337
Siew, D. C. W., 1109
Sijpkes, A. H., 1461, 2943, 3737
Simons, J. P., 11, 17, 1949
Sims, H. E., 1443
Singh, K. C., 2203
Singh, K. K., 683, 3829
Singh, P. P., 2853
Sjöqvist, L., 3377
Skácel, F., 341
Smart, R. St. C., 947
Smith, D. J., 2059
Smith, I. W. M., 1751, 1757, 3983
Smith, J. A. S., 763, 3045
Smith, J. V., 2341
Smith, R. H., 1403
Smith, S. J., 2109
Smith, T. A., 3853
Smith, W. E., 4065
Sobczyk, L., 1777
Söderman, O., 1555
Södervall, U., 1293
Soffer, N., 495
Softley, T. P., 1969
Solar, S., 311
Sole, K. C., 525
Solinas, V., 193, 2795
Solymosi, F., 389
Somsen, G., 1461, 2943, 3737
Song, S., 3125
Sonntag, E., 1899
Sørensen, T. S., 341, 1815
Sotani, N., 1583
Sousa Oliveira, M. A., 471, 3883
Spencer, M. S., 2633, 3151
Špirko, V., 1991
Spiro, M., 3573
Spoto, G., 703, 2321
Squire, G. D., 1607
Srivastava, T., 105
Stace, A. J., 2069, 2405
Starnatovic, A., 2395
Stedman, G., 3561
Steenbergen, H. P., 1407
Stell, the late J. K., 3261
Stepto, R. F. T., 4103
Sterk, H., 265
Steytler, D. C., 511, 2883
Stickland, R. J., 2921
Stoneham, A. M., 1215
Stothard, N. D., 2115
Strange, J. H., 1239
Strey, R., 2253
Strzelecka, H., 2819
Sueki, M., 3181
Sugawara, M., 253
Sulikowski, B., 199, 3967
Summersgill, J. P. L., 1943
Sun, H., 1649
Sun, Q., 1737
Suppan, P., 2079
Surya, A., 105
Sutcliffe, B. T., 3045
Sutcliffe, L. H., 3309, 3313
Suzuki, H., 2179
Suzuki, T., 371, 1071, 2303, 4025
Swallow, A. J., 1483
Swanton, S. W., 3919
Swarnakar, R., 3803
Symons, M. C. R., 591, 1909, 2173, 3267, 3293
Szablewski, M., 1117
Szabo, A. G., 3853
Szejgis, A., 2225
Tabata, Y., 95
Tabellout, M., 1493
Tabner, B. J., 3253
Tabner, V. A., 3253
Taday, P. F., 217
Taga, K., 1561
Tagawa, S., 95
Takagi, T., 3429
Takahashi, A., 1383
Takahashi, S., 253
Takeda, H., 3429
Takenaka, S., 3429
Tamizi, M., 115
Tanabe, K., 467
Tanaka, H., 531
Tanaka, T., 467
Tanaka, Y., 2971, 2975
Taniewska-Osińska, S., 2225, 3103
Tanizawa, Y., 1071, 4025
Tanner, G., 2473
Tantardini, G. F., 3793
Tashiro, T., 1139, 4071
Tasker, P. W., 1311
Taulelle, F., 3823
Taylor, A. O., 2743
Taylor, M. J., 1109
Teixeira, J., 1503
Teles, H., 4011
Temperley, H. N. V., 1909
Tennyson, J., 763, 1963
Terazima, M., 253
Teter, M. P., 1221
Thampi, K. R., 3671
Than, C., 875
Thomas, H. J., 2765
Thomas, J. M., 581, 1095, 2985, 3135, 3473
Thomason, M., 1511
Thrush, B. A., 3355
Tietje-Girault, J., 2249
Tilley, R. J. D., 3129
Timmermann, E. O., 1057
Toi, K., 1139, 4071
Tokuda, S., 2291, 3659
Tolazzi, M., 2841
Tole, P., 1019
Tomat, G., 2841
Tomiyasu, H., 55, 1621
Tomlin, A. S., 3365
Torrance, C. A., 3197
Tóth-Boconádi, R., 1527
Towey, T. F., 3757
Townsend, P. D., 1287
Traboulssi, R., 501, 1067, 2193
Trifirò, F., 2775
Tripathi, S., 3603
Truhlar, D. G., 1705
Trullàs, J., 2139
Truscott, T. G., 2671, 3075, 3081, 3879
Tsang, S. C., 1607, 3803
Tsuchiya, S., 3489
Tsvetkov, Yu. D., 3201
Tucker, S. A., 307, 2197
Tuckett, R. P., 2021
Turner, J. C. R., 145, 763
Turner, P. S., 947
Turulski, J., 1
Tutcher, B., 2027
Tuzar, Z., 1103
Tzeng, W. B., 2417
Uggerud, E., 2533
Unwin, P. R., 137, 657, 849, 1517
Upham, J. E., 2405
Urch, D. S., 247
Ushida, K., 95
Vager, Z., 2469
Vaïdà, V., 2043
Valencia, E., 539
Valentini, J. J., 3837
Valenzuela, R., 2979
Vallino, M., 3653
van Bekkum, H., 3967
Van den Bosch, A., 3299
Van Der Voort, P., 3747, 3751
van Eijk, A. M. J., 2083
van Haverbeke, L., 4095
Van Phat, N., 1899
Vansant, E. F., 585, 3747, 3751
Varma, C. A. G. O., 2083, 3717
Vayer, M., 2719
Veber, M., 2819
Vedeneev, A. A., 3545
Velázquez, M. M., 4043
Verdasco, E., 1017
Vergés, M. A., 959
Vernon, M. L., 1233
Veyret, B., 2927
Vickerman, J. C., 1863, 2749
Villafuerte-Castrejón, M. E., 2979
Villamañan, M., 5
Vincent, B., 223, 1377
Vinckier, C., 603
Vink, H., 2607
Vlad, M. O., 789
Vochten, R. F. C., 4095
Volonté, S., 1587
von Maltzan, B., 1087
Vorob'eva, G. A., 3185
Vos, J. G., 2905
Vuković, M., 3743
Vuolle, M., 2569, 3257
Vyas, S. N., 3455
Waite, J., 3525
Wakeham, W. A., 763
Walder, G., 2395
Wales, D. J., 3505
Walker, A., 2027
Walker, C. T., 849
Walker, D. R. B., 2267
Walker, R. W., 2115
Waller, A. M., 335, 2583, 2951
Wallwork, A. L., 3975
Walsh, R., 27
Walters, A., 1949
Walton, J. C., 3237
Wang, E., 2243
Wang, Z-C., 3641
Warr, J. F., 3983
Warwick Jr, P., 2209
Washio, M., 95
Watanabe, K., 2303
Watanabe, T., 4071
Watts, I. M., 27
Waygood, S. J., 2109, 2557
Wayne, R. P., 223, 1909, 2109
Webb, B. S., 3051
Webster, B. C., 220
Wei, S., 2417
Wells, B. H., 43
Wells, C. F., 941, 1471, 1791
West, A. R., 2979
Western, C. M., 2921
Whan, D. A., 223
Whetten, R. L., 2375
Whitaker, B. J., 2069
White, J. M., 2271
White, L. R., 2859
Whitehead, J. C., 1619
Whitehead, M. A., 889
Whittlesey, M. K., 2897
Wichterlová, B., 3033
Wilde, C. P., 437
Williams, C., 581, 3473
Williams, G., 1013
Williams, G. A., 2805
Williams, I. H., 1909
Williams, K. P. J., 1603
Williams, P. G., 875
Williams, R. J. P., 223
Williamson, D. J., 3491
Wilson, M. R., 1113
Winkler, C., 2395
Winterbottom, F., 1619
Wokaun, A., 1131
Wong, Y-T., 553, 4083
Wood, N. D., 1539
Woodcock, L. V., 2121, 2593, 3419
Woodward, C. A., 2069, 2405
Wormald, C. J., 69
Worsley, D., 3405
Wright, G. A., 1083
Wright, J. D., 109, 115
Wrinn, M. C., 889
Wurzburger, S., 85, 3891
Wyatt, R. E., 1641
Wyn-Jones, E., 1511, 1535
Xiexian, G., 3145
Xu, Y., 425
Yahya, R., 2297
Yamachika, M., 815
Yamada, A., 609
Yamagiwa, S., 1383
Yamaguchi, T., 467, 1621
Yamamoto, M., 157, 3797
Yamamoto, Y., 811
Yamashita, M., 609
Yan, M., 3279
Yan, S., 2701, 3827
Yanagihara, Y., 2971
Yariv, S., 1593
Yeo, G. A., 3067
Yin, D., 623
Yokoyama, T., 2937
Yoneyama, H., 815
Yong, Y-S., 1015
Yoshida, S., 561
Yoshida, T., 1561
Yoshino, M., 3489
Young, W. K., 2883
Yuan, P., 593
Zajfman, J., 2469
Zalotai, L., 21
Zamaraev, K. I., 581, 3473
Zambonin, P. G., 3607, 3769
Zanonato, P. L., 2841
Zanoni, R., 739
Zarkadis, A. K., 3229
Zaslavsky, B. Yu., 519
Zecchina, A., 703, 2321
Zeigan, D., 2307
Zhan, R., 3125
Zhang, J. Z. H., 1701
Zhang, T., 623
Zhang, Z., 2313
Zhao, M., 1705
Zhou, Y., 2271
Zibrowius, B., 2307, 3943
Zikánová, A., 881
Znaidi, L., 2623
Zones, S. I., 3467
Zoroddu, M. A., 2579
Zubowa, H-L., 2307
Zukoski IV, C. F., 2629
Zundel, G., 301, 627, 3557
Zvaigzne, A. I., 307, 2197